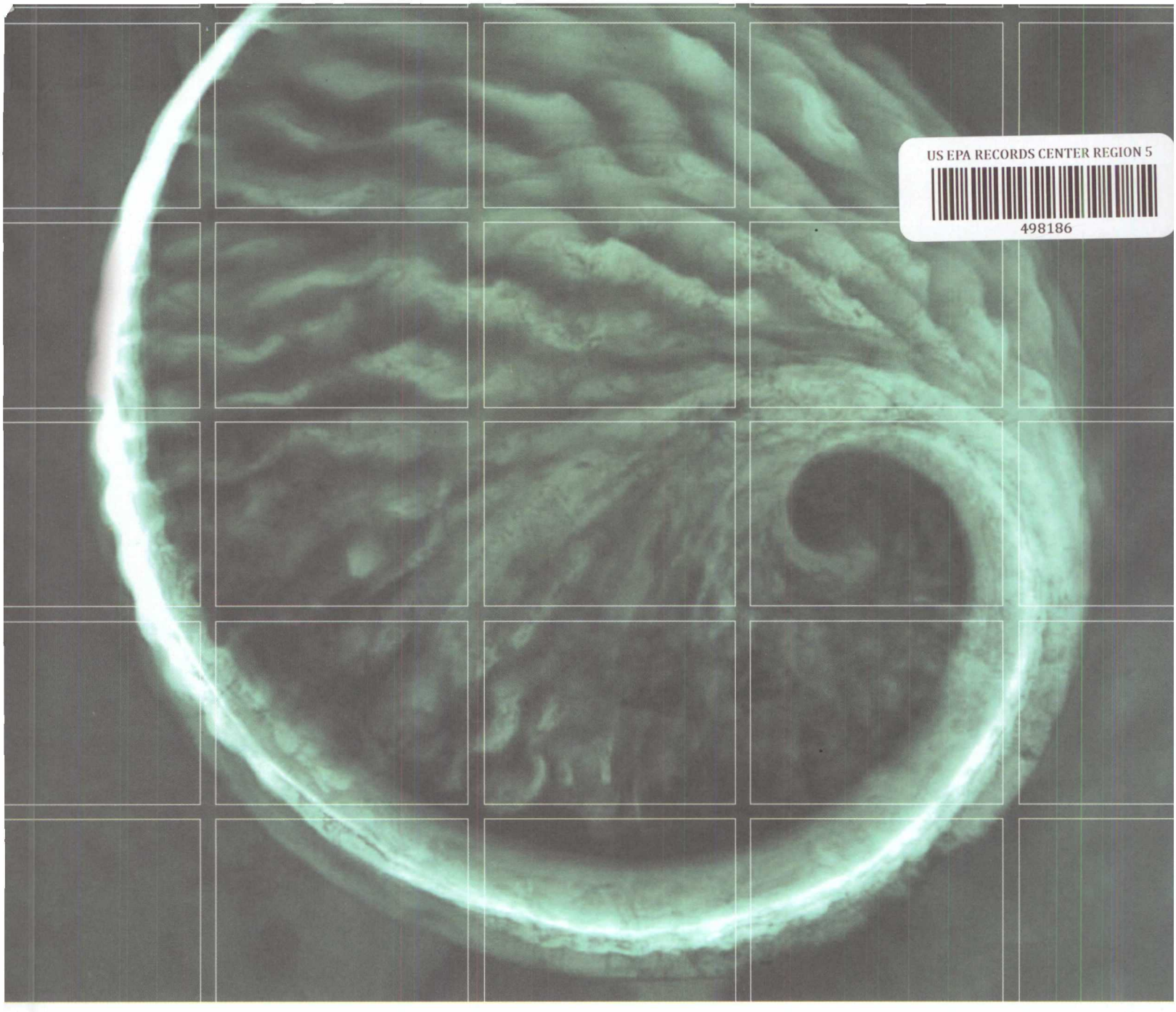

2010 Operation & Monitoring Report and Five Year Evaluation

Greiner's Lagoon
Ballville Township, Ohio

February 2011

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REMARKS

Attached please find the 2010 O&M Report and Five Year Review for your approval. We would like to set up a meeting with you and Ohio EPA to discuss the five year review and to develop a plan moving forward for the Site. Please contact us at your earliest convenience so that we can set up a meeting time. Thank you.

COPY TO:

File
Ghassan Tafla - OEPA, NW District Office (2 copies)
Karen Walter, Esq. - The Lubrizol Corporation
Meera Raghuram - The Lubrizol Corporation

SIGNED:

Sarah B. Gregg, P.E.
Project Manager

If enclosures are not as noted, kindly notify us at once.

FINAL REPORT

The Lubrizol Corporation

2010 Operation & Monitoring Report and Five Year Evaluation

Greiner's Lagoon
Ballville Township, Ohio

February 2011

ERM Project No. 0047810

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EXECUTIVE SUMMARY

This report contains the 2010 Annual Operating Report and Five Year Review for the Greiner's Lagoon Superfund Site (Site Id. # 0550) located in Ballville Township, Ohio (herein referred to as "Site"). The remedial action was completed in October 2005. The final inspection of the Site was conducted by Tom Williams of the United States Environmental Protection Agency (USEPA) and Ghassan Tafla of the Ohio Environmental Protection Agency (OEPA) on May 4, 2006. The Notice of Completion was issued by the USEPA on October 2, 2006. Normal maintenance was conducted at the site according to the requirements of the Operation and Maintenance (O&M) Manual approved by the USEPA (approved via e-mail on September 29, 2006 by Thomas Williams).

ERM has subcontracted with Cutter-Green LLC located in Fremont, Ohio to assist with routine O&M activities at the Site since the installment of the of the phytoremediation cap. Beginning in April 2007, the Site has been inspected at least once per quarter by either ERM personnel or ERM subcontractors. The key maintenance issues for the Site have been associated with minor erosion control and repair, application of fertilizer and periodic watering, inspection and limited replacement of damaged trees, and repair of animal burrows.

In addition to the routine O&M at the Site, annual groundwater sampling has been conducted by ERM from 2006 through 2010. Sampling has been conducted in accordance with the USEPA approved Sampling and Analysis Plan and the Quality Assurance Project Plan.

This report summarizes the findings for the 2010 calendar year (i.e. fifth year of performance monitoring) and provides a collective review and analysis of the first five years of data collection at the Site.

The objective of the remedial action (RA) as stated in the Statement of Work (SOW), Final Removal Design/ Removal Action Work Plan (Work Plan), and O&M Manual is to minimize the potential for human exposure to constituents of concern at levels that would result in calculated risks above USEPA threshold values for the Site. As shown herein, the Site remains protective of risk and is therefore adhering to the RA objective. The institutional and engineering controls currently in place are necessary and sufficient.

The performance criteria for the RA as stated in the SOW, Work Plan, and O&M Manual are to confirm that there are no significant changes in the ground water quality and to determine if a significant reduction in the volume of leachate releases (seepage breakouts) has occurred. Based on the performance standards, the remedial action at the Site continues to be effective. The grass cover and poplar trees are surviving and flourishing. There is no significant change in groundwater quality as the Site continues to meet risked based criteria. Lastly, during the five year monitoring period, no seepage breakouts have been observed.

Based on the five years of monitoring data, the phytoremediation cap is performing as it was designed and is meeting the stated remedial objectives and performance criteria. No additional action or modification to the phytoremediation system is therefore recommended.

1.0 *BACKGROUND HISTORY*

The Site is located south of Fremont, Ohio on Township Road 181 about ½-mile west of Tiffin Road (CR 53) in Ballville Township, Sandusky County (Figure 1). The Site was originally developed in 1954 and contained four lagoons that were used to store waste oil from nearby industry. During the course of the Site operations by various owners, a number of community complaints and legal actions were undertaken due to odors and releases from the lagoons. From 1981 to 1988, the USEPA implemented site removal actions that included lagoon dike reinforcement, surface oil removal, liquids treatment and discharge, sludge solidification, lagoon backfilling, and placement of a soil cover over the filled lagoons. Between 1982 and 1985, OEPA coordinated the delivery of sand and gravel washings from the processing of sugar beets and placement of the material in the lagoons to solidify the material in the open lagoons.

In 1991 USEPA and Lubrizol, a potentially responsible party (and not the property owner), entered into an AOC to produce an Engineering Evaluation/Cost Analysis (EE/CA). The EE/CA included site characterization, a streamlined risk evaluation and preliminary ecological risk assessment, identification of removal action objectives, identification and evaluation of removal action alternatives, and recommendation of a non-time critical removal action for the site. Based on the results of the EE/CA, site investigations, and risk assessment, phytoremediation was selected as the preferred removal action for the Site. Phytoremediation was recommended to be implemented at the Site using a tall grass cover and a groundwater tree barrier. The area covered at the Site was 3.2 acres, which has been fenced to control access to the site and to help ensure the long-term integrity of the phytoremediation system. All existing vegetation was cleared from the former lagoon areas. The northern portion of the Site was amended with soil to improve subsoil quality in the soft areas that had formerly been filled by USEPA and OEPA. One foot of topsoil was placed over the regraded soils to help promote rapid root development and to minimize exposure to bare areas. The design of the phytoremediation cover included surface water management through the use of drainage ditches and site grading to reduce water infiltration into the effected areas. Construction of the phytoremediation cover was completed in 2005.

Following completion of the Remedial Action (RA), an Operation and Maintenance (O&M) Manual was developed for the Site in July 2006. The O&M Manual describes the activities designed to maintain the remedy implemented for the Site. The O&M measures and activities are required to maintain the effectiveness of the RA and ensure that the remedy remains protective of human health and the environment. The RA is intended to provide for short- and long-term minimization of the potential for human exposure to constituents of concern at levels that would result in calculated risks above USEPA threshold values for the Site.

As outlined in the O&M Manual, the performance of a phytoremediation system must be assessed during operation to ensure that the goals for the system are met. The monitoring required is different from that used for conventional remediation systems and requires measuring fewer parameters. System monitoring as outlined in the O&M Manual includes visual inspections and groundwater sampling. The performance of the phytoremediation system is measured against the performance standards outlined in the SOW in the AOC.

Per the O&M Manual, groundwater monitoring was conducted annually for five years to monitor site specific groundwater parameters (i.e., to confirm there are no significant changes in the ground water quality). Yearly monitoring has occurred at the Site from 2006 through 2010. Yearly reports were submitted in January of the years 2007 through 2010 that summarized the previous year's performance monitoring. This report presents the findings of the fifth year of performance monitoring as well as an analysis of the initial five years worth of monitoring.

The remainder of the report is organized as follows:

- TAB 1
  - Section 2 - Results of the Maintenance Activities that were performed in the fifth year of performance monitoring (2010)
  - Section 3 - Results of the Analytical Groundwater Sampling that was conducted in the fifth year of performance monitoring (2010)
- TAB 2
  - Section 4 - A cumulative five year review and analysis of the data collected at the Site, including an overview of the Site performance and an evaluation of the performance criteria

2010 DATA

2.0 *YEAR FIVE - OPERATION AND MAINTENANCE ACTIVITIES*

Maintenance activities at the site in 2010 included cutting of grass and animal burrow repair. Following the winter of 2009-2010, normal maintenance activities commenced in the summer of 2010, when the mowing activities were needed. To ensure normal operation and report any required maintenance, Site inspections were performed quarterly by ERM personnel. The integrity of the phytoremediation cap, vitality of the trees, and condition of the fence were noted.

Ecolotree, Inc. provided the poplar and willow trees used for the phytoremediation buffer in 2006 and during installation divided the site into three basic zones: Zone A, Zone B, and Zone C. For consistency, ERM has labeled the Site Plan (see Figure 2) with these zone references that are further described below.

- Zone A is located in the northern portion of the Site and includes the northern top of the slope, the north and west gates, the culvert inlet and outlet, and the tile inlet.

- Zone B is located in the central portion of the Site and includes the southern half of the top of the slope and ends approximately at the southern toe of the slope.

- Zone C is located at the southernmost portion of the Site and is generally referred to as the timber area in the Cutter-Green descriptions in previous inspection logs.

ERM subcontracted with Cutter-Green LLC located in Fremont, Ohio to assist with routine O&M activities at the Site.

2.1 *SITE INSPECTIONS*

In accordance with the Site O&M Manual, site inspections were performed quarterly for years two through five following completion of the remedy. The results of the site inspections were included in the 2006 through 2009 annual O&M Reports. A summary of the site inspections and maintenance conducted for the 2010 calendar year (year five) is provided below.

1st Quarter 2010 (Winter)

An ERM employee was on-Site on January 29, 2010 to conduct the 1st Quarter 2010 Site inspection. At this time, the drums containing the purge water from the 2009 annual sampling were also removed for proper disposal by PSC of Toledo, Ohio. The ground was lightly covered with snow and the trees and grass were dormant for the winter. The previously identified animal burrows had been repaired and there were no signs of new animal burrows.

2nd Quarter 2010 (Spring)

ERM conducted the 2nd Quarter 2010 Site inspection on May 21, 2010. The ground was saturated due to a recent rain event. The water retention areas appeared to be working as designed. Animal burrows were present, but they appeared to be inactive. Cutter Green had been on-site to cut the grass and as a result of the Site inspection they were instructed to repair the animal burrows.

3rd Quarter 2010 (Summer)

The Greiner's Lagoon third quarter site inspection was conducted on September 7, 2010. The ground was dry and some small patches of dead grass were observed, as is typical for this dry time of the year. New animal burrows were also observed. Cutter Green was instructed to repair the animal burrows.

4th Quarter 2010 (Fall)

The Greiner's Lagoon fourth quarter site inspection was conducted on November 15, 2010 in conjunction with the annual sampling event. The ground surface was moist and the plant growth at the site was typical for the fall season. Small animal burrows were still present and Cutter Green made repairs and removed the groundhogs from the Site, following this Site inspection.

Copies of the inspection reports are included in Appendix A. A photo log compiling the photos taken during the 2010 calendar year site inspections is also included in Appendix B. No leachate breakouts or evidence of leachate breakouts were observed during the quarterly Site inspections by ERM, during the annual groundwater sampling, or during the maintenance activities conducted by Cutter Green throughout the growing season.

2.2 *TREE REPLACEMENT*

The trees around Greiner's Lagoon were inspected during the 2010 growing season and it has been determined that the majority of the trees are flourishing and healthy. Based on the positive survival rate of the trees observed during 2010, tree replacement activities were not needed at the Site. At this time, it appears that the maintenance activities have been successful for the 2010 calendar year.

2.3 *SITE DRAINAGE*

The storm water drainage system is designed to retain excess storm water and discharge to the off-site field tile at a controlled rate so that the downstream drainage (field tile and ditches) are not flooded; thereby allowing adjacent farm fields to drain into the area drainage system.

During the 2010 calendar year, standing water was observed in the drainage swale after large rain events, as designed. Re-grading in the swale that occurred in 2006 has reduced the storm water retention time to an approximate two (2) day maximum in the wettest part of the drainage swale.

3.0 YEAR FIVE - GROUNDWATER SAMPLING

As required by the AOC, both the USEPA and the Ohio EPA were notified on October 25, 2010 that groundwater sampling was scheduled to be conducted starting November 15, 2010.

Sampling activities for the 2010 annual sampling event at the Site began on November 15th, 2010 and finished on November 19th, 2010. Groundwater levels were recorded on November 15th in preparation for the actual sampling event and were also recorded on the field sampling forms at the time of sampling. Field Sampling forms are enclosed in Appendix C.

3.1 FIELD PROCEDURES

3.1.1 Initial Static Water Levels

Prior to the collection of any water samples, the static water level in each well was measured with an interface probe to detect any immiscible layers within each well. It is noted that none of the wells had detections of immiscible layers during the November 2010 sampling event. After the water level was determined for each well, the interface probe was rinsed thoroughly with DI water. The static water levels and total well depths were then entered on the field form for each well. Static water levels were used to determine well volumes. These groundwater measurements were also compared with historical groundwater measurements (Table 1).

During the 2010 sampling, the bedrock aquifer was detected to be flowing in a northwest direction at a gradient of 0.0002 ft/ft. The potentiometric surface for the deep zone (bedrock aquifer) is shown on Figure 3. The general westward flow (inclusive of southwest and northwest) is consistent with the expected regional flow to the Sandusky River, located approximately ½ mile west of the Site.

The groundwater flow direction in the shallow zone in November 2010 was toward the west which is consistent with the post-remediation data collected since 2006. The gradient is about 0.008 ft/ft and this flow is toward the mature trees to the west of the site and the Sandusky River, about ½ mile west and southwest. The potentiometric surface for the shallow zone is shown on Figure 4.

3.1.2 *Well Purging*

Once the water level and total well depth was measured in a well, the well volume was calculated. Each well was then purged of three volumes or more using a disposable polyethylene weighted bailer. During the purging of the well, measurements of the following parameters were recorded to determine stabilization of the well water:

- time;
- volume purged;
- pH;
- conductivity;
- temperature; and
- turbidity

The instruments used for the water quality parameter measurements were calibrated daily before sampling activities began. These calibrations and field parameter measurements can be found on the respective field forms enclosed as Appendix C.

Purge water from all the wells was collected in properly labeled 55-gallon drums, sealed, and stored on-site. The on-site storage is located within the secure portion of the site within the fence. The drums were approved for disposal by PSC of Toledo, Ohio as non-hazardous waste water and were picked up for off-site disposal on January 20, 2011.

3.1.3 *Sample Collection*

Once three well volumes were purged from a well, a decontaminated non-dedicated bladder pump was lowered into the well. The bladder pump was then used at each well to purge one additional gallon before water quality parameter readings were determined. Low flow samples were taken with the bladder pump only after three consecutive, stable readings of all water quality parameters (within 10%) were achieved. Groundwater was collected from the sandpack interval portion of each well. The depths of the pump placement in each well are recorded on the respective field forms (refer to Appendix C).

Once sampling activities were completed, the bladder pump was field stripped, decontaminated by a double wash rinse of distilled water and Alconox, and reassembled before sampling the next well. New polyethylene tubing was used to sample each well.

The decontamination rinsates were collected along with the purge water and contained in 55-gallon drums.

The following samples were collected at each well:

- (3) 40mL glass vials with hydrochloric acid (HCL) preservative for Volatile Organic Compounds (VOCs) method 8260B;
- (2) 1L glass amber bottles with no preservative for Semi-volatile organic Compounds (SVOCs) method 8270C; and
- (2) 0.5L plastic containers with nitric acid (HNO_3) preservative for Priority Pollutant Metals. One of the two sample containers for metals was filtered in the field using a 0.45 µm filter prior to acidification while the other was unfiltered.

Once the samples were collected, they were immediately sealed and placed into insulated coolers with wet ice. Before shipping, the coolers contained a properly signed chain of custody form. A custody seal was also affixed to the cooler before being taped and shipped to Test America Laboratories in North Canton, Ohio.

Duplicate samples were taken at MW-13 and MW-1. Equipment Blanks were collected on November 17, 2010 between the sample collection from wells MW-12 and MW-1 and on November 18, 2010 after the MS/DS sample collection from well MW-3 and sampling well MW-6. An MS/MSD sample was taken for the lab at MW-3.

3.2 *GROUNDWATER SAMPLE RESULTS*

The November 2010 sampling event provided the fifth round of data collected since the installation of the phytoremediation system. Previous sampling data was collected in November from 2006 through 2009 and have been summarized in previous annual reports.

Groundwater sample results for the November 2010 sampling event are presented in Table 2. The analytical lab report used to create Table 2 is also enclosed in Appendix D. Tables 3 through 5 present a historic detection summary of the groundwater sampling from 1998 through 2010. Detected constituents in Tables 3 through 5 are compared to their corresponding Exposure Point Concentrations (EPCs) per the EE/CA and Maximum Concentration Limits (MCLs) per the USEPA.

Furthermore, it is noted that some constituents were marked with qualifiers by Test America, indicating that the sample results did not meet the quality assurance/quality control standards, which included constituents that were also detected in the method blank or were detected between the method detection limit (MDL) and the reporting limit (RL). These detections are labeled with a "B" or a "J" qualifier, respectively, in both the lab reports and data tables.

According to Test America, all target analytes in the Method Blank must be below the RL or the associated sample(s) must be ND with the exception of common laboratory contaminants. Furthermore, the samples that contain results between the MDL and the RL ("J" flagged) have the possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The samples that contained concentrations of target analytes at a reportable level in the associated Method Blank(s) were flagged with "B" and are therefore considered lab contaminants and are not treated as a positive detection. The samples that contain results between the MDL and the RL were flagged with "J" and have a possibility of false positive or mis-identification at these quantitation levels, according to Test America. Therefore "J" flagged constituents are considered estimated values rather than valid detections and have been treated as such in the discussions herein for the 2010 sampling event.

3.2.1 *Deep Groundwater*

Deep groundwater associated with the Site was evaluated by sampling and testing groundwater samples from wells MW-1 through MW-3. Groundwater samples were analyzed for VOCs, SVOCs, and priority pollutant metals. None of the groundwater samples collected from the deep groundwater wells had valid detections of VOCs, SVOCs, or priority pollutant metals above lab detection limits during the 2010 sampling event.

3.2.2 *On-Site Perched Shallow Groundwater*

On-site perched shallow groundwater associated with the Site was evaluated by sampling and testing groundwater samples from wells MW-4 through MW-8. Groundwater samples were analyzed for VOCs,

SVOCs, and priority pollutant metals. The following constituents were detected during the 2010 sampling event:

VOCs

- Acetone
- Benzene
- 4-methyl-2-pentanone (MIBK)
- Toluene

Metals

- Antimony
- Arsenic
- Nickel
- Selenium

No SVOCs were detected above lab detection limits.

Of the constituents listed above only two metals, arsenic and antimony, and one VOC, benzene, were detected above their corresponding MCL. Antimony is the only constituent that was also detected above its corresponding EPC in one well.

3.2.3 *Off-Site Perched Shallow Groundwater*

Off-site perched shallow groundwater associated with the Site was evaluated by sampling and testing groundwater samples from wells MW-9 through MW-15. Groundwater samples were analyzed for VOCs, SVOCs, and priority pollutant metals. The following constituents were detected during the 2010 sampling event:

VOCs

- Acetone

Metals

- Arsenic
- Nickel

No SVOCs were detected above lab detection limits.

Of the constituents listed above only arsenic was detected above its corresponding MCL. Arsenic was also detected above its corresponding EPC in one well (MW-9).

5 YR REVIEW

4.0 *CUMULATIVE FIVE YEAR REVIEW*

As stated in the SOW and the Work Plan, the RA objective is as follows:

- "To mitigate the risks to human health and the environment as defined in the EE/CA. In accordance with these documents the RA will provide for short- and long-term minimization of the potential for human exposure to constituents of concern at levels that would result in calculated risks above USEPA threshold values for the Site."

Furthermore, the Performance Criteria for the Site as stated in the Performance Standards section of the O&M Manual is as follows:

- "Ground water monitoring will be conducted annually for five years to monitor site specific ground water parameters (i.e., to confirm there are no significant changes in the ground water quality)."

- "Five years after construction of the phytoremediation remedy, USEPA, in consultation with OEPA, will determine whether a significant reduction in the volume of leachate releases (seepage breakouts) has occurred. If no significant reduction in the volume of and contaminant concentrations in leachate releases (seepage breakouts) have occurred, then USEPA, in consultation with OEPA, will evaluate whether additional response actions are necessary."

The O&M Manual continues to explain that "this evaluation will include, but may not be limited to, collection of data, a human health risk assessment, and cost projections for any potential future remediation. Furthermore, if the grass cover, cotton or hybrid poplar trees fail to survive and flourish; additional flora must be installed that is capable of surviving and flourishing. Monitoring of the removal action to evaluate its effectiveness will be conducted during the first five years. If after five years, the monitoring shows that the technology is not effective, the alternative will be enhanced, supplemented or replaced."

Calendar year 2010 marked the fifth year of operation and maintenance activities at the Site since the installation of the phytoremediation system. In accordance with the O&M Plan for the Site and as indicated in previous annual reports, a review of all of the data collected in the first five years of

monitoring at the Site has been conducted. The purpose of this data analysis is to determine compliance with the performance criteria and the RA objective. A discussion of the data analysis is further described below.

4.1 *SITE INSPECTIONS*

Quarterly Site inspections have occurred at the Site from January 2006 through December 2010.

Photograph 1: Tree Planting Activities in November 2005, looking Northeast, along northern end of the Site

Photograph 2: May 2010, looking West at the Northern portion of the Site

The photos shown above provide a comparison of the growth of the trees since they were planted in 2005. The grass cover and the trees have been successfully planted and are flourishing.

Based on the observations made during the quarterly inspections, no seepage breakouts have occurred at the Site since the implementation of the RA and the remedy is adhering to the performance standards outlined in Section 4.3 of the O&M Plan.

4.2 *ANALYTICAL SAMPLING*

Ten target VOCs, nineteen target SVOCs, and numerous low level metals were detected in the groundwater at the Site during the pre-remediation sampling in 1998. As described in Section 3.2 of this report, concentrations of these constituents have declined since installation of the phytoremediation cap and few of these constituents were detected above lab detections during the most recent round of sampling. In fact, only 4 VOCs and 4 metals were even detected above lab detection limits in the shallow groundwater on or off- Site. Furthermore, no VOCs, SVOCs, or

metals were detected above lab detection limits in the deep groundwater during the most recent round of sampling.

As described in the O&M Manual, the RA was intended to provide for short- and long-term minimization of the potential for human exposure to constituents of concern at levels that would result in calculated risks above USEPA threshold values for the Site. The yearly analytical sampling was conducted in order to monitor the short-term effectiveness of the RA. In order to determine the long-term effectiveness of the RA, further analyses were completed as further described herein.

Prior to the remedy installation, the shallow monitoring wells indicated that the localized flow direction of the shallow saturated zone was generally toward the northwest, west, and southwest, in a radial direction from the eastern property boundary as indicated in the EE/CA by the data collected in July 1996, November 1998, January 1999, and April 1999. Following the installation of the RA, the water levels in the shallow zone monitor wells have all dropped from November 2006 to November 2010. Changes in water depths from 2006 to 2010 have ranged from approximately 1.5 feet deeper (MW-5) to 6.25 feet deeper (MW-8). The water level change may be the result of increased evapotranspiration at the Site. However overall, the direction of the groundwater flow has remained generally to the west since the remediation occurred in 2006.

Based on current shallow groundwater conditions, the off-site wells are categorized as follows in relation to the Site:

- Upgradient wells: MW-13, MW-14, and MW-15
- Downgradient Wells: MW-11 and MW-12
- Cross Gradient Wells: MW-9 and MW-10

The remedy is considered to be effective if a) there are no significant changes in groundwater quality and b) the remedy remains protective of risks. Statistical trend analysis was performed to evaluate groundwater quality as discussed below. Risks on-site are effectively managed through existing controls such as fencing and a deed restriction. In order to evaluate risks, an updated risk assessment of the shallow groundwater zone was performed, which is further discussed in the subsequent sections.

4.3 *STATISTICAL ANALYSES*

As proposed in the 2009 annual report, statistical analyses have been conducted of the historic analytical data that has been collected at the Site, including pre-remediation data from 1998 and post-remediation data from 2006 through 2010. As stated in Section 4.3 of the O&M Manual, the performance criteria for groundwater monitoring is to confirm that there are no significant changes in the groundwater quality. The methodology and results of the statistical analysis is discussed below.

For trend analysis purposes, ERM focused their statistical analyses on the target constituents identified during the 1998 sampling round (pre-remediation), which were VOCs, SVOCs, and metals. Based on the data collected, the following selection criterion was used for constituent trending:

- Constituents labeled with a "B" flag were not used for trending as they were detected in the method blank and do not qualify as a valid detection.

- All other analytical results of VOCs, SVOCs, and metals including estimated values that were denoted with a qualifier ("J" flag) were considered for statistical purposes. However, it is noted that "J" flag values are often below detection limits and can falsely skew a trend to appear to be increasing when there are numerous non-detects for a specific parameter. Therefore, additional selection criteria were established (see next bullet).

- Trend analyses were completed for any constituent with an analytical result from at least 50% of the sampling events (i.e. detected during three sampling events) from 1998 through 2010 with at least one of those detections in exceedance of its corresponding current MCL value.

The trends in concentrations-over-time at the monitoring wells were evaluated using the Mann-Kendall statistical test. The Mann-Kendall test is a non-parametric test that can be used to assess whether concentrations exhibit increasing or decreasing trends over time to a specified level of confidence. The Mann-Kendall test was performed using Monitoring and Remediation Optimization System (MAROS) Software Version 2.1, which was developed for the Air Force Center for Environmental Excellence (Nov. 2004). A separate trend test is performed on each well for each contaminant and requires a minimum of four sampling events. The

results of this test are reported as Concentration Trend, which is reported as Decreasing, Probably Decreasing, No Trend, Stable, Increasing, or Probably Increasing, based on the Mann-Kendall statistic and the Confidence in Trend. For example, if the Mann-Kendall statistic is negative, a decreasing trend is reported if Confidence in Trend is greater than 95% and a probably decreasing trend if the confidence is between 90 and 95%. Calculations of the Mann-Kendall analyses and further explanation of the trend test are provided in Appendix E.

Based upon the selected criteria described above, the only constituents that warranted a Mann-Kendall analysis were benzene, antimony, and arsenic in select wells. Of all the constituents that were analyzed using the Mann-Kendall analysis, only antimony in MW-5 and arsenic in MW-9 have shown an increasing trend in shallow groundwater. No trending was conducted in the deep groundwater zone as no constituents were identified meeting the selected criteria.

As a result of the increasing trends detected for antimony in MW-5 and arsenic in MW-9, the corresponding downgradient wells (MW-11 and MW-12) were examined for detections of these constituents. There were no detections of antimony during any of the sampling events in the downgradient wells; therefore, no additional trend analyses were completed for antimony. Similarly, arsenic was not detected in downgradient well MW-12; however, there were two detections of arsenic in MW-11 and therefore, arsenic trend analyses in MW-11 were completed using the Mann-Kendall trend analysis, even though it did not meet the selection criteria listed above (50% constituent detection). Further discussion on MW-11 is included in Section 4.4 below.

4.4 *EVALUATION OF CURRENT RISK*

Based on the findings of the Statistical analyses, ERM determined that overall trends of constituents observed in the groundwater at the Site have remained generally stable and do not show overall signs of increasing concentrations. Only two increasing trends for select metals were observed in two shallow groundwater wells:

- Antimony in on-Site well MW-5
- Arsenic in off-site well MW-9

MW-5 is an on-site well and exposure to this well has been limited through effective and necessary institutional controls. Further, there are no valid detections of antimony in the downgradient wells.

Based on the current groundwater flow conditions, MW-9 is an off-site, side-gradient well. While this well has a calculated increasing trend for arsenic, the wells located down-gradient of the on-site wells have not shown an increase in arsenic concentrations. MW-11 was calculated to have no trend for arsenic and no valid detection of arsenic have occurred in MW-12 throughout the sampling history of the Site.

However, to evaluate if the Site was still protective of risk and to quantify whether these changes in groundwater quality are significant, ERM performed a limited updated risk evaluation for the shallow on-site and off-site groundwater. Risks were evaluated for potential exposure via dermal and inhalation pathways for future construction workers. Using the same assumptions that were stated in the EE/CA, total noncarcinogenic and carcinogenic risks were evaluated for these exposure pathways, which were determined to be the only complete exposure pathways related to the Site. In addition, it is noted that estimated "J" qualified data was used in this updated risk evaluation to remain consistent with the EE/CA. Data labeled with a "B" qualifier was not used.

The Streamlined Risk Evaluation that was performed and documented in Section 5 of the EE/CA was conducted in 2001 with the most recent risk assessment guidelines and procedures at that time. The updated risk evaluation that was conducted on the 2010 analytical data was performed based on the most recent standards and procedures as of the date of this report. Refer to Appendix F for more details on the assumptions and references used in this updated risk evaluation.

4.2.1 *Carcinogenic Risks*

Based on the 2010 sampling data, the following carcinogenic risks have been calculated for the on-site perched groundwater. The estimated cancer risk for dermal exposure with on-site perched groundwater by the construction worker is 1.9×10^{-8}. On-site perched groundwater estimated a cancer risk for inhalation risks for the construction worker is 7.6×10^{-10}.

Based on the 2010 sampling data, the following carcinogenic risks have also been calculated for the off-site perched groundwater. The estimated cancer risk for dermal exposure with off-site perched groundwater by the

construction worker is 6.9×10^{-9}. No carcinogenic constituents for inhalation (i.e. VOCs) were detected in the off-site perched groundwater, thus no cancer risk for inhalation was calculated. This is consistent with the 2001 EE/CA.

The resultant cancer risks for the construction worker potentially exposed to on-site and off-site perched groundwater is 2.0×10^{-8} and 6.9×10^{-9}, respectively. These estimated risks for the construction worker are well below the acceptable cancer risk range of 1×10^{-4} to 1×10^{-6}. In 2001, the major contributors to on-site perched groundwater cancer risks were benzene and bis(2-ethylhexyl) phthalate and in 2010 the major contributors were antimony and benzene. In 2001 and 2010, the major contributor to off-site perched groundwater cancer risks was arsenic in the perched groundwater.

4.2.2 *Noncarcinogenic Risks*

Based on the 2010 sampling data, the following noncarcinogenic risks have been calculated for the on-site perched groundwater. The estimated noncarcinogenic risk for dermal exposure with on-site perched groundwater by the construction worker is 5.4×10^{-3}. On-site perched groundwater estimated a noncarcinogenic risk for inhalation risks for the construction worker is 3.9×10^{-5}.

Based on the 2010 sampling data, the following noncarcinogenic risks have also been calculated for the off-site perched groundwater. The estimated noncarcinogenic risk for dermal exposure with off-site perched groundwater by the construction worker is 1.1×10^{-3}. Off-site perched groundwater estimated a noncarcinogenic risk for inhalation risks for the construction worker is 3.6×10^{-8}.

The 2010 resultant noncarcinogenic risks for the construction worker potentially exposed to on-site and off-site perched groundwater are 5.4×10^{-3} and 1.1×10^{-3}, respectively. These estimated risks for the construction worker are below the acceptable noncarcinogenic hazard index (HI) of 1.0.

5.0 *CONCLUSIONS*

This report summarizes the operating activities at Greiner's Lagoon Superfund Site (Site Id. # 0550) located in Ballville Township (Site) in the fifth year of performance monitoring (2010 calendar year) and provides a review of the first five years of monitoring at the Site. Site activities were conducted according to the USEPA approved O&M Manual and consisted generally of groundwater sampling, erosion inspection and repair, and landscaping

In accordance with the Site O&M Manual, site inspections were performed quarterly for the years two through five following completion of the remedy. No major issues were identified as a result of the inspections and no seepage breakouts were identified during the entire five year inspection period. Maintenance activities completed at the site during the years of inspections included swale regrading (2006), a fence repair (2008), tree replacements, and animal burrow repairs.

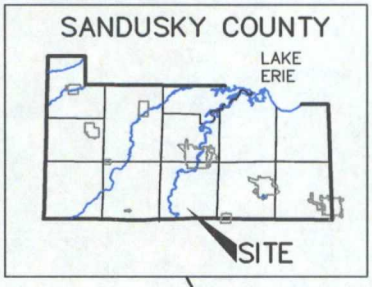
The objective of the RA as stated in the SOW, Work Plan, and O&M Manual is to minimize the potential for human exposure to constituents of concern at levels that would result in calculated risks above USEPA threshold values for the Site. As shown herein, the Site remains protective of risk and is therefore meeting the RA objective. The institutional and engineering controls currently in place are necessary and sufficient.

The performance criteria for the RA as stated in the SOW, Work Plan, and O&M Manual are to confirm that there are no significant changes in the ground water quality and to determine if a significant reduction in leachate breakouts has occurred. Based on the performance standards, the remedial action at the Site continues to be effective. Any changes in groundwater quality are not significant as the Site continues to meet risked based criteria. Lastly, during the five year monitoring period, no seepage breakouts or evidence of seepage breakouts has been observed. The grass cover and poplar trees have been successfully planted and are flourishing.

Based on the five years of monitoring data, the phytoremediation cap is performing as it was designed and is meeting the stated remedial objectives and performance criteria. No additional action or modification to the phytoremediation system is therefore recommended.

Figures

OHIO



SECTION 33
T.4N. – R.15E.
BALLVILLE TOWNSHIP
SANDUSKY COUNTY
FREMONT, OHIO

N

0 2000

SCALE (IN FEET)

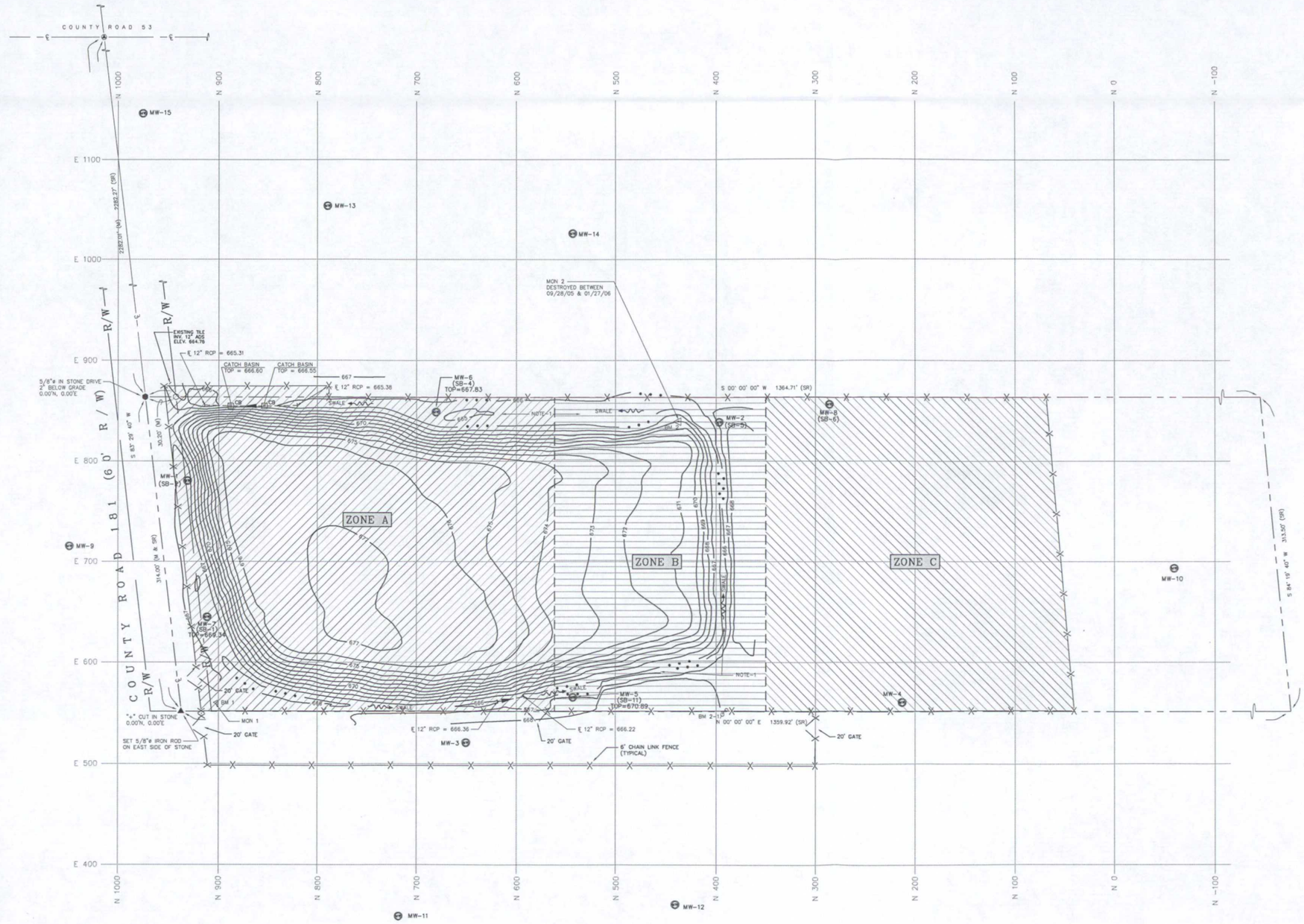
SITE LOCATION MAP

ADAPTED FROM USGS
FREMONT WEST/1980

REVISIONS ARE TO BE MADE ON THE CADD FILE ONLY

ERM.	**LUBRIZOL** GREINER'S LAGOON SITE FREMONT, OHIO	CADD Review CHK'D 0004100
Drawn By FAK 5/20/05	Environmental Resources Management	FIGURE 1

R:\CADD\Clnt-L\Lubrizol\0004100\0004100-SLM.dwg, Model, 6/9/2005 1:40:13 PM, 1:1, GML



N
(ASSUMED)

1" = 50'
SCALE
0 50 100 150
FEET

LEGEND

DESCRIPTION	SYMBOL
CENTER LINE/BASELINE	℄ ℄
RIGHT-OF-WAY LINE	R/W R/W
PROPERTY LINE	
SECTION LINE	
EDGE OF PAVEMENT	E/P E/P
DRIVE OR SIDEWALK	
FENCE LINE (SPECIFY TYPE)	X X
CATCH BASIN, YARD BASIN	CB YB
SURFACE WATER DIRECTION	
CONTOUR LINE	676
POWER POLE (W/ GUY WIRE)	
TELEPHONE POLE	
PIPELINE MARKER POST	
STREAM OR DITCH	
MONITORING WELL	

SURVEY LEGEND

SET	FOUND	DESCRIPTION
⊕	⊕	MONUMENT
⊕	⊕	RAILROAD SPIKE
⊘	◪	P.K. NAIL
○	●	IRON PIPE
◇	◆	DRILL HOLE
○		5/8"ø x30" IRON ROD
	●	IRON ROD
	■	FENCE POST
	▲	STONE
	⊡	MONUMENT BOX
D		DEED
P		PLAT
M		MEASURED
C		CALCULATED
Ø		OUTSIDE DIAMETER
SR		SURVEY RECORD

I HEREBY DECLARE THAT THE ABOVE TOPOGRAPHICAL SURVEY WAS PERFORMED SEPTEMBER, 2005 & JANUARY, 2006
ALL OBJECTS LOCATED AND ELEVATIONS SHOWN ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

THIS DOCUMENT WAS ORIGINALLY ISSUED BY JOHN M. MUSTERIC, 09-28-2005, AND WAS REVISED ON 02-16-2006. THIS DOCUMENT IS NOT CONSIDERED A SEALED DOCUMENT.

JOHN M. MUSTERIC , P.S. NO. 7629 DATE

NOTES:

1.) THE SWALE FROM THE SOUTH END OF THE WEST CULVERT TO THE SOUTH END OF OF THE EAST CULVERT HAS BEEN REWORKED SINCE SEPTEMBER 28, 2005. THIS DRAWING DOES NOT REFLECT THIS CHANGE.

2.) THE SIX FOOT CHAIN LINK FENCE ENCROACHES ONTO:
A.) COUNTY ROAD 181 RIGHT-OF-WAY.
B.) PRIVATE PROPERTY TO THE EAST.
C.) PRIVATE PROPERTY TO THE WEST.

3.) BENCH MARK 2/MONUMENT 2 WAS DESTROYED BETWEEN SEPTEMBER 28, 2005 AND JANUARY 27, 2006.

Prepared by:

J. MUSTERIC & ASSOCIATES
CONSULTING ENGINEERS and SURVEYORS
303 SOUTH ARCH STREET FREMONT, OHIO 43420 419-355-8214

REVISIONS TO BE MADE ON THE CADD FILE ONLY

Rev.	Date	Description	By	Chk
2	1/8/07	ADDED PERIMETER MONITORING WELLS	ERM	WS
1	2/20/06	REVISED TO CONFORM WITH CONSTRUCTION RECORDS	ERM	JJ-CLE

DRAWN BY FAK | CADD Review RMK | CHECKED BY JJ

Environmental Resources Management

LUBRIZOL
CONSTRUCTION RECORD DRAWINGS
GREINER'S LAGOON SITE
FREMONT, OHIO

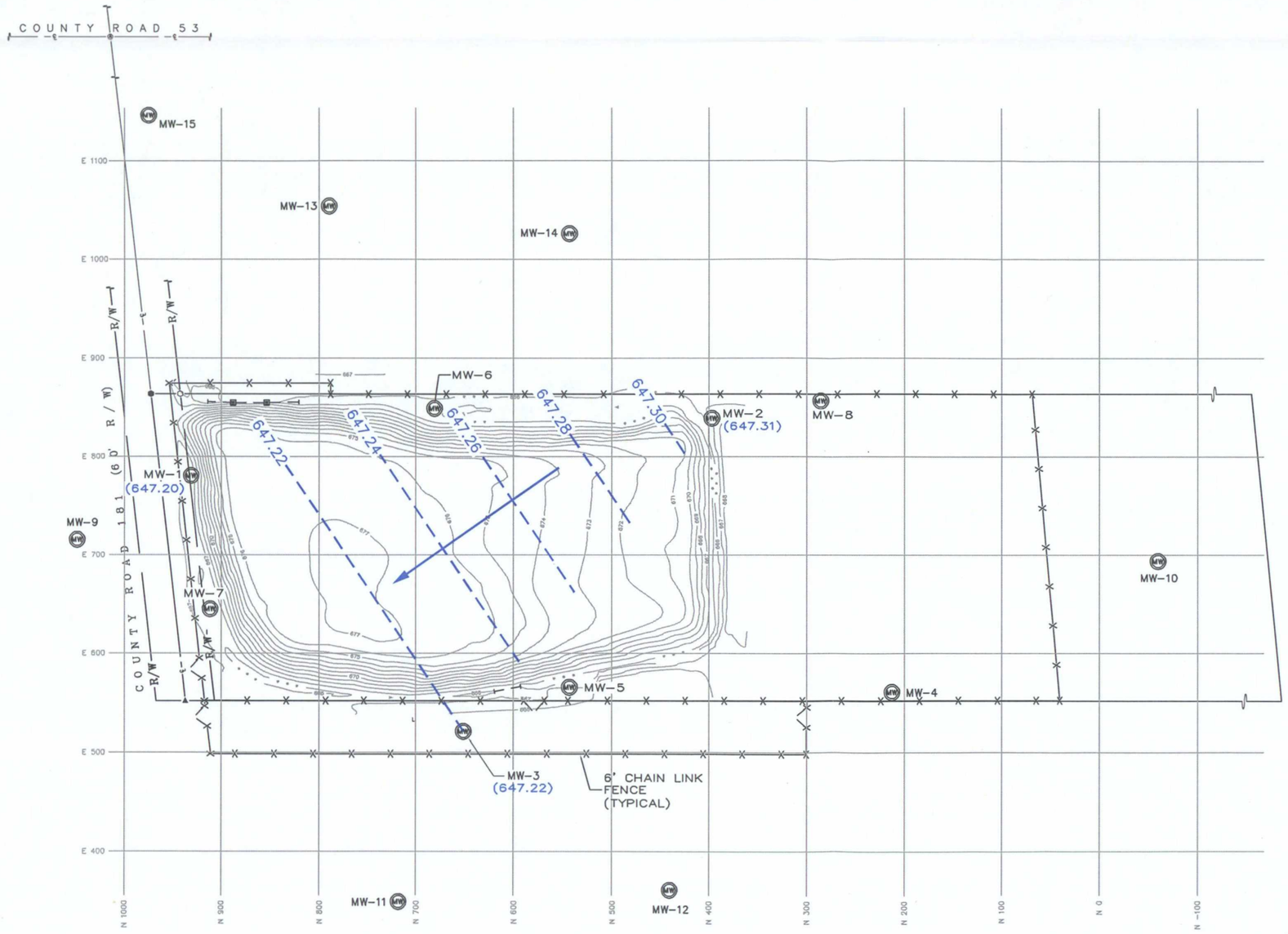
FINAL GRADING PLAN WITH DRAINAGE

SCALE	PROJECT NUMBER	SHEET	REV.
1"=40'	0004100	FIGURE 2	2

DATE 03/02/2005

R:\Cadd\Civil\Lubrizol\0004100AS CONSTRUCTED\0004100 as constructed.dwg, GRADING PLAN, 2/17/2011 8:18:03 AM, GNL

NOVEMBER 2010 POTENTIOMETRIC CONTOUR MAP – BEDROCK AQUIFER



N

0 120 240

SCALE (IN FEET)

LEGEND

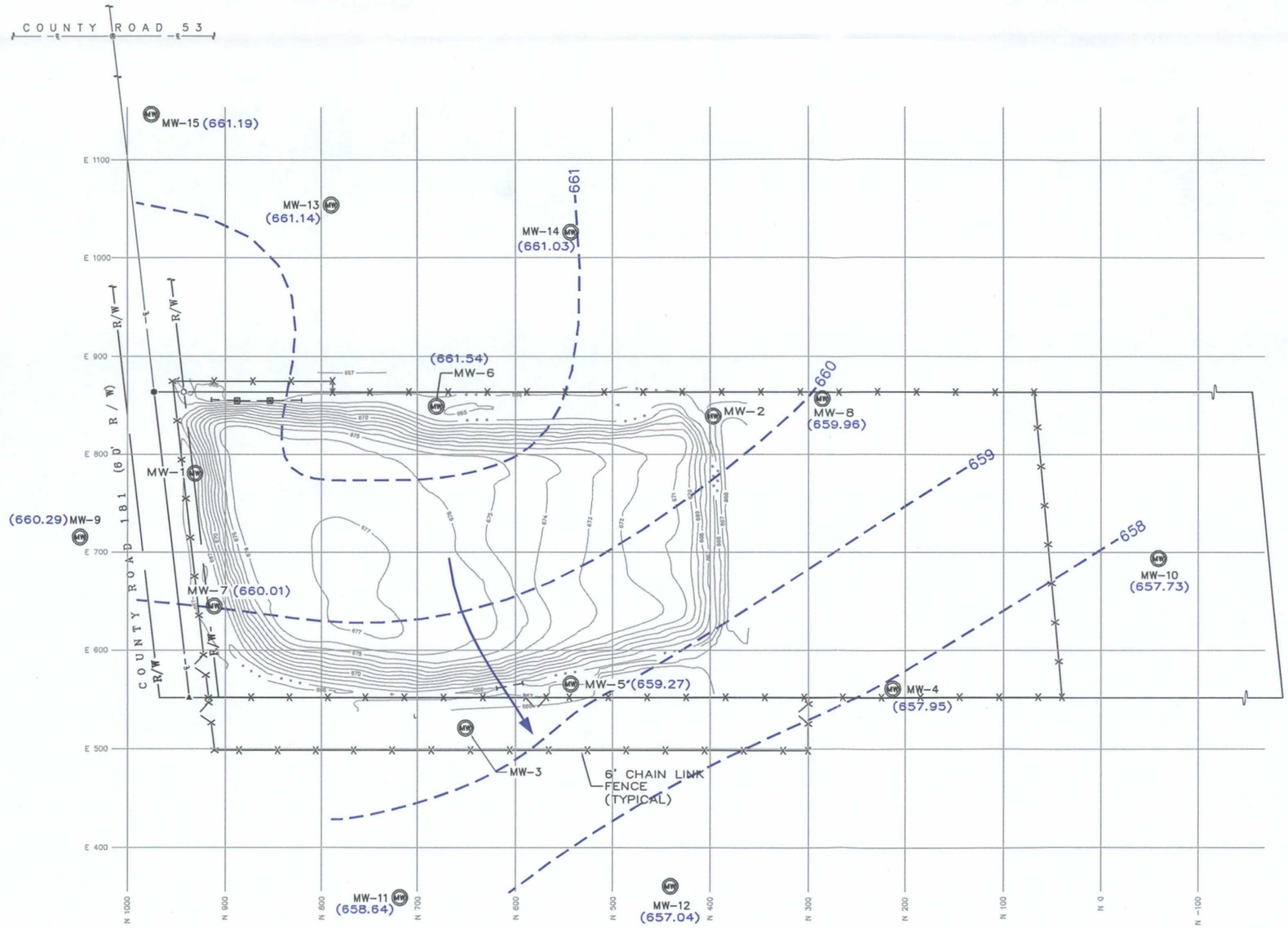
- MW — MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (FT.)
- GROUNDWATER FLOW DIRECTION
- (647.31) GROUNDWATER ELEVATION

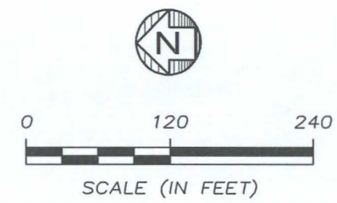
NOTE
GROUNDWATER LEVELS WERE MEASURED ON 11/15/2010

Drawn By FAK	ERM®	LUBRIZOL GREINER'S LAGOON SITE FREMONT, OHIO	CHK'D AF
CADD Review RMK			0047810
Date Drawn/Rev'd 12/7/10		Environmental Resources Management	FIGURE 3

R:\Cadd\Cintl-L\Lubrizol\0047810.04\0047810-02.dwg, BEDROCK AQUIFER NOV 2010, 12/7/2010 2:27:50 PM, FAK

NOVEMBER 2010 POTENTIOMETRIC CONTOUR MAP SHALLOW SATURATED ZONE





LEGEND

- MW — MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (FT.)
- GROUNDWATER FLOW DIRECTION
- (659.96) GROUNDWATER ELEVATION

NOTE
GROUNDWATER LEVELS WERE MEASURED ON 11/15/2010

Drawn By FAK	ERM	LUBRIZOL GREINER'S LAGOON SITE FREMONT, OHIO	CHK'D AF
CADD Review RMK			0047810
Date Drawn/Rev'd 12/7/10		Environmental Resources Management	FIGURE 4

R:\Cadd\Clntl-L\Lubrizol\0047810.0410047810-02.dwg, SHALLOW SATURATED NOV 2010, 12/7/2010 2:57:12 PM, FAK

Tables

Table 1
Greiner's Lagoon
Historic Groundwater Elevations

Date		July 1996		11/10/1998		1/27/1999		4/28/1999	
Well ID	T.O.C.	DTW	GW ELV	DTW	GW ELV	DTW	GW ELV	DTW	GW ELV
MW-1	668.13	19.66	648.47	19.29	648.84	18.27	649.86	16.55	651.58
MW-2	669.88	21.14	648.74	20.88	649.00	20.02	649.86	18.30	651.58
MW-3	669.22	20.47	648.75	20.31	648.91	19.34	649.88	17.60	651.62
MW-4	667.51	3.75	663.76	7.29	660.22	2.17	665.34	1.50	666.01
MW-5	668.56	4.69	663.87	6.37	662.19	4.05	664.51	2.44	666.12
MW-6	667.45	3.42	664.03	4.38	663.07	1.26	666.19	0.92	666.53
MW-7	668.09	4.45	663.64	5.60	662.49	2.72	665.37	2.65	665.44
MW-8	667.17	3.31	663.86	4.73	662.44	0.83	666.34	0.72	666.45
MW-9	669.13	-	-	6.84	662.29	4.90	664.23	5.90	663.23
MW-10	670.82	-	-	10.23	660.59	7.62	663.20	3.75	667.07
MW-11	669.45	-	-	9.78	659.67	8.77	660.68	3.60	665.85
MW-12	669.89	-	-	11.88	658.01	10.80	659.09	3.60	666.29
MW-13	669.80	-	-	6.99	662.81	3.61	666.19	4.48	665.32
MW-14	669.70	-	-	6.78	662.92	3.55	666.15	4.31	665.39
MW-15	669.31	-	-	-	-	-	-	-	-

Date		11/8/2006		11/12/2007		11/17/2008		11/9/2009	
Well ID	T.O.C.	DTW	GW ELV	DTW	GW ELV	DTW	GW ELV	DTW	GW ELV
MW-1	668.13	18.05	650.08	18.77	649.36	20.20	647.93	20.73	647.40
MW-2	669.88	19.51	650.37	20.76	649.12	22.14	647.74	22.85	647.03
MW-3	669.22	18.98	650.24	20.22	649.00	21.61	647.61	22.29	646.93
MW-4	667.51	4.68	662.83	5.57	661.94	9.57	657.94	9.98	657.53
MW-5	668.56	7.78	660.78	8.09	660.47	8.20	660.36	9.11	659.45
MW-6	667.45	3.22	664.23	4.02	663.43	2.78	664.67	5.89	661.56
MW-7	668.09	4.22	663.87	6.36	661.73	6.98	661.11	8.41	659.68
MW-8	667.17	0.96	666.21	4.40	662.77	5.62	661.55	7.55	659.62
MW-9	669.13	5.35	663.78	6.57	662.56	7.95	661.18	9.23	659.9
MW-10	670.82	9.25	661.57	9.01	661.81	12.21	658.61	13.16	657.66
MW-11	669.45	9.05	660.40	8.70	660.75	10.84	658.61	11.08	658.37
MW-12	669.89	10.95	658.94	10.05	659.84	13.27	656.62	13.4	656.49
MW-13	669.80	5.31	664.49	6.51	663.29	4.91	664.89	9.02	660.78
MW-14	669.70	4.91	664.79	6.45	663.25	4.73	664.97	9.05	660.65
MW-15	669.31	5.30	664.01	6.01	663.30	5.41	663.90	8.55	660.76

Date		11/15/2010	
Well ID	T.O.C.	DTW	GW ELV
MW-1	668.13	20.93	647.20
MW-2	669.88	22.57	647.31
MW-3	669.22	22.00	647.22
MW-4	667.51	9.56	657.95
MW-5	668.56	9.29	659.27
MW-6	667.45	5.91	661.54
MW-7	668.09	8.08	660.01
MW-8	667.17	7.21	659.96
MW-9	669.13	8.84	660.29
MW-10	670.82	13.09	657.73
MW-11	669.45	10.81	658.64
MW-12	669.89	12.85	657.04
MW-13	669.80	8.66	661.14
MW-14	669.70	8.67	661.03
MW-15	669.31	8.12	661.19

Table 2
Groundwater Data - November 2010
Greiner's Lagoon
Fremont, Ohio

Sample ID:	MW-1		MW-1 DUP		MW-2		MW-3		MW-3 MS/DS		MW-4		MW-5		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-13		MW-13 DUP		MW-14		MW-15		Equipment Blank 1		Equipment Blank 2		Trip Blank 1		Trip Blank 2	
Date:	11/18/2010		11/18/2010		11/19/2010		11/18/2010		11/18/2010		11/18/2010		11/19/2010		11/18/2010		11/18/2010		11/19/2010		11/17/2010		11/16/2010		11/17/2010		11/17/2010		11/17/2010		11/17/2010		11/16/2010		11/16/2010									
Parameter																																										
VOCs (ug/L)																																										
1,1,1,2-Tetrachloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,1,1-Trichloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,1,2,2-Tetrachloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,1,2-Trichloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,1-Dichloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,1-Dichloroethene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,2,3-Trichloropropane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,2-Dibromo-3-chloropropane	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<5.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
1,2-Dibromoethane (EDB)	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,2-Dichloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,2-Dichloropropane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
1,4-Dioxane	U	<200	U	<200	U	<200	U	<200	U	<200	U	<200	U	<1000	U	<800	U	<200	U	<200	U	<200	U	<400	U	<400	U	<2.0	U	<2.0	U	<200	U	<200	U	<200	U	<200	U	<200	U	<200
2-Butanone (MEK)	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	J	**42**	J	**8**	J	**3.6**	J	**3**	J	**2.8**	J	**1.5**	U	<20	U	<20	U	<0.20	U	<400	J	**0.57**	U	<10	U	<10	U	<10	U	<10
2-Hexanone	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U	<50	U	<40	U	<10	U	<10	U	<10	U	<10	U	<20	U	<20	U	<2.0	U	<20	U	<10	U	<10	U	<10	U	<10	U	<10
4-Methyl-2-pentanone (MIBK)	U	<10	U	<10	U	<10	U	<10	U	<10	U	<10	**340**		U	<40	J	**3.4**	J	**3.1**	J	**2.2**	J	**0.34**	J	**1.6**	U	<20	J	**1.3**	J	<20	J	**0.68**	U	<10	U	<10	U	<10	U	<10	U	<10
Acetone	U	<10	J	**1.3**	U	<10	J	**3.8**	J	**3.8**	J	**3.3**	**130**		**230**		**25**		**45**		**28**		**21**		J	**11**	J	**9.1**		**21**		**1.4**		**13**	J	**1.1**	U	<10	U	<10	U	<10	U	<10
Acetonitrile	U	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U	<100	U	<80	U	<20	U	<20	U	<20	U	<20	U	<20	U	<40	U	<40	U	<0.20	U	20	U	<20	U	<20	U	<20	U	<20	U	<20
Acrolein	U	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U	<100	U	<80	U	<20	U	<20	U	<20	U	<20	U	<20	U	<40	U	<40	U	<1.0	U	<40	U	<20	U	<20	U	<20	U	<20	U	<20
Acrylonitrile	U	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U	<100	U	<80	U	<20	U	<20	U	<20	U	<20	U	<20	U	<40	U	<40	U	<1.0	U	<40	U	<20	U	<20	U	<20	U	<20	U	<20
Allyl chloride	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<4.0	U	<40	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
Benzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	**13**		U	<4.0	**1.9**		U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Bromodichloromethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Bromoform	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Bromomethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<10	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Carbon disulfide	J	**0.75**	J	**0.63**	U	<1.0	U	<1.0	U	<1.0	U	<1.0	J	**1.7**	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Carbon tetrachloride	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Chlorobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Chloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Chloroform	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Chloromethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Chloroprene	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
cis-1,3-Dichloropropene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Dibromochloromethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Dibromomethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Dichlorodifluoromethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Ethyl methacrylate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	J	**0.28**	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Ethylbenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	J	**2.4**	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Iodomethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<5.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Isobutyl alcohol	U	<50	U	<50	U	<50	U	<50	U	<50	U	<50	U	<250	U	<200	U	<50	J	**11**	U	<50	U	<50	U	<100	U	<100	U	<0.20	U	<2.0	U	<50	U	<50	U	<50	U	<50	U	<50
Methacrylonitrile	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<0.20	U	<100	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
Methyl methacrylate	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<0.20	U	<4.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
Methylene chloride	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0		**1.8**
Propionitrile	U	<4.0	U	<4.0	U	<4.0	U	<4.0	U	<4.0	U	<4.0	U	<20	U	<16	U	<4.0	U	<4.0	U	<4.0	U	<4.0	U	<8.0	U	<8.0	U	<0.20	U	<2.0	U	<4.0	U	<4.0	U	<4.0	U	<4.0	U	<4.0
Styrene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<8.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Tetrachloroethene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Toluene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	**7**		U	<4.0	J	**0.2**	J	**0.23**	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
trans-1,2-Dichloroethene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
trans-1,3-Dichloropropene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<5.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
trans-1,4-Dichloro-2-butene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Trichloroethene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	J	**2.0**	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<0.20	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Trichlorofluoromethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Vinyl acetate	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<10	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<1.0	U	<4.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
Vinyl chloride	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<5.0	U	<4.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<2.0	U	<2.0	U	<1.0	U	<2.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0
Xylenes (total)	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	J	**5.2**	U	<8.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<4.0	U	<4.0	U	<1.0	U	<4.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0
SVOCs (ug/L)																																										
1,2,4-Trichlorobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
1,2-Dichlorobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
1,3-Dichlorobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
1,4-Dichlorobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
2,2'-Oxybis(1-Chloropropane)	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
2,4,5-Trichlorophenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
2,4,6-Trichlorophenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
2,4-Dichlorophenol	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
2,4-Dimethylphenol	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
2,4-Dinitrophenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
2,4-Dinitrotoluene	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
2,6-Dinitrotoluene	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
2-Chloronaphthalene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
2-Chlorophenol	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
2-Methylnaphthalene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA		NA	
2-Methylphenol	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
2-Nitroaniline	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
2-Nitrophenol	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
3,3'-Dichlorobenzidine	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
3-Nitroaniline	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4,6-Dinitro-2-methylphenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
4-Bromophenyl phenyl ether	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4-Chloro-3-methylphenol	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4-Chloroaniline	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4-Chlorophenyl phenyl ether	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4-Methylphenol	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA		NA	
4-Nitroaniline	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<2.0	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	U	<10	U	<40	U	<40	U	<40	U	<2.0	U	<2.0	U	<2.0	NA		NA	
4-Nitrophenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA		NA	
Acenaphthene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA		NA	

Table 2
Groundwater Data - November 2010
Greiner's Lagoon
Fremont, Ohio

Sample ID:	MW-1		MW-1 DUP		MW-2		MW-3		MW-3 MS/DS		MW-4		MW-5		MW-6		MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-13		MW-13 DUP		MW-14		MW-15		Equipment Blank 1		Equipment Blank 2		Trip Blank 1	Trip Blank 2
Date:	11/18/2010		11/18/2010		11/19/2010		11/18/2010		11/18/2010		11/18/2010		11/19/2010		11/18/2010		11/18/2010		11/19/2010		11/17/2010		11/16/2010		11/17/2010		11/17/2010		11/17/2010		11/17/2010		11/16/2010		11/16/2010							
Acenaphthylene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Anthracene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Benzo(a)anthracene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Benzo(a)pyrene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Benzo(b)fluoranthene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Benzo(ghi)perylene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Benzo(k)fluoranthene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
bis(2-Chloroethoxy)methane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
bis(2-Chloroethyl) ether	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
bis(2-Ethylhexyl) phthalate	B	**11**	U	<2.0	U	<2.0	J B	**1.7**	J B	**1.7**	U	<8.0	U	<100	U	<8.0	U	<20	U	<40	U	<40	U	<20	U	<20	J B	**6.7**	U	<40	U	<40	U	<40	U	<2.0	J B	0.98	U	<2.0	NA	NA
Butyl benzyl phthalate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Carbazole	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Chrysene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Dibenz(a,h)anthracene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Dibenzofuran	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Diethyl phthalate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Dimethyl phthalate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Di-n-butyl phthalate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Di-n-octyl phthalate	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Fluoranthene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0		6.2	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Fluorene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Hexachlorobenzene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Hexachlorobutadiene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Hexachlorocyclopentadiene	U	<10	U	<10	U	<10	U	<10	U	<10	U	<40	U	<500	U	<40	U	<100	U	<200	U	<200	U	<100	U	<100	U	<50	U	<200	U	<200	U	<200	U	<10	U	<10	U	<10	NA	NA
Hexachloroethane	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Indeno(1,2,3-cd)pyrene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Isophorone	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Naphthalene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Nitrobenzene	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
N-Nitrosodi-n-propylamine	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
N-Nitrosodiphenylamine	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Pentachlorophenol	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<20	U	<250	U	<20	U	<50	U	<100	U	<100	U	<50	U	<50	U	<25	U	<100	U	<100	U	<100	U	<5.0	U	<5.0	U	<5.0	NA	NA
Phenanthrene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Phenol	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<1.0	U	<4.0	U	<50	U	<4.0	U	<10	U	<20	U	<20	U	<10	U	<10	U	<5.0	U	<20	U	<20	U	<20	U	<1.0	U	<1.0	U	<1.0	NA	NA
Pyrene	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.80	U	<10	U	<0.80	U	<2.0	U	<4.0	U	<4.0	U	<2.0	U	<2.0	U	<1.0	U	<4.0	U	<4.0	U	<4.0	U	<0.20	U	<0.20	U	<0.20	NA	NA
Metals (ug/L)																																									
Antimony	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0	B	**3.3**		**103**	B	**4.8**	U	<60.0	U	<60.0	B	**2.9**	U	<60.0	U	<60.0	B	**2.3**	U	<60.0	U	<60.0	U	<60.0	U	<1.0	U	<60.0	U	<60.0	NA	NA
Arsenic	U	<10.0	U	<10.0	B	**5.9**	U	<10.0	U	<10.0	U	<10.0		**12.6**		**31.3**		**99.7**	B	**10.3**	B	**2.8**	U	<10.0	B	**8.3**	B	**5**		**23.2**		**21.2**		**11.3**	U	<1.0	U	<10.0	U	<10.0	NA	NA
Beryllium	U	<5.0	U	<5.0	B	**0.74**	B	**0.46**	B	**0.5**	B	**0.6**	B	**0.77**	B	**0.57**	B	**0.5**	B	**0.89**		**33.4**	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<3.0	U	<1.0	U	<5.0	B	**0.49**		NA	NA
Cadmium	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	B	**0.67**	U	<5.0	U	<5.0	U	<0.20	U	<1.0	U	<5.0	U	<5.0	NA	NA
Chromium	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	B	**4.4**	U	<10.0	U	<10.0	U	**5.2**	U	<5.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	B	**18.7**	U	<1.0	U	<10.0	U	<10.0	NA	NA
Copper	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	B	**19.1**	U	<25.0	U	<25.0	U	**15.5**	B	**4.4**	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<5.0	U	<5.0	U	<25.0	U	<25.0	NA	NA
Lead	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0		**10.2**	U	<3.0	U	<3.0	U	**2.9**	B	**6.4**	U	<3.0		**3**	U	<3.0		**3.6**		**3.2**	U	<5.0	U	<5.0	U	<3.0	U	<3.0	NA	NA
Mercury	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<10.0		<2.0	U	<0.20	U	<0.20	NA	NA
Nickel	U	<40.0	U	<40.0	U	<40.0	U	<40.0	U	<40.0	B	**10.3**		**147**	B	**11.4**		**55.4**	B	**25.9**	B	**14.3**	B	**16.2**	B	**32**		**50.4**	B	**12**	B	**10.7**	B J	**9**	B	<2.0	U	<40.0	U	<40.0	NA	NA
Selenium	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0		**7.8**	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	B	**12.2**	U	<5.0	U	<5.0	U	<5.0	NA	NA
Silver	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<5.0	U	<10.0	U	<10.0	NA	NA
Thallium	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	B J	**7.9**	J	**10.1**	B J	**9.8**	B J	**8.6**	B J	**4.9**	U	<10.0	U	<5.0	B J	<5.0	U	<10.0	U	<10.0	NA	NA
Zinc	U	<20.0	U	<20.0	U	<20.0	U	<20.0	U	<20.0	B J	**17.9**	J	**23.9**	U	<20.0	B J	**5.6**	B J	**34.5**		**27**	U	<20.0		**20.3**	B	**8.2**	B	**9.1**		**35.4**	U	<25.0	B	<1.0	U	<20.0	U	<20.0	NA	NA
Dissolved Metals (ug/L)																																									
Antimony-DISS	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0		**104**	U	<60.0	U	<60.0	U	<60.0	U	<60.0	B	**3**	B	**2.9**	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0	U	<60.0	NA	NA
Arsenic-DISS	U	<10.0	U	<10.0	B	**5.5**	U	<10.0	U	<10.0	U	<10.0		**11**		**30.7**		**75.7**		**4**		**31.1**	B	**4.1**		**10.7**	B	**6.5**		**23.4**		**23.6**		**10.8**	B	**3.7**	B	**3.4**	U	<10.0	NA	NA
Beryllium-DISS	U	<5.0	U	<5.0	B	**0.59**	B	**0.46**	B	**0.46**	B	**0.56**	B	**0.7**	B	**0.55**	U	<5.0	B	**0.62**	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	NA	NA
Cadmium-DISS	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	NA	NA
Chromium-DISS	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	B	**2.4**	U	<10.0	U	<10.0	B	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	NA	NA
Copper-DISS	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	B	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	U	<25.0	NA	NA
Lead-DISS	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	B	**2.1**	U	<3.0	U	<3.0	B	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	NA	NA
Mercury-DISS	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<1.0	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	U	<0.20	NA	NA
Nickel-DISS	U	<40.0	U	<40.0	U	<40.0	U	<40.0	U	<40.0	B	**8.2**		**140**	B	**9.6**		**52.9**	B	**15.8**	B	**8.3**	B	**16.8**	B	**29.6**		**5.3**	B	**11.2**	U	**10.7**	B	**19.5**	B	**7**	U	<40.0	U	<40.0	NA	NA
Selenium-DISS	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0		**9.4**	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	U	<5.0	NA	NA
Silver-DISS	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	NA	NA
Thallium-DISS	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	U	<10.0	B J	**6.6**	B J	**7.2**	B J	**5.8**	B J	**9.3**	U	<10.0	U	<10.0	B J	**9.1**	U	<10.0	B J	**6.2**	U	<10.0	NA	NA
Zinc-DISS	U	<20.0	U	<20.0	U	<20.0	U	<20.0	U	<20.0	U	<20.0	B J	**5.7**	U	<20.0	U	<20.0	J	**7.6**	B	**12.5**	B	**6.5**	B	**18.1**	B	**13.4**	U	<20.0		<20.0	B	**5.1**	B	**5.2**	U	<20.0	U	<20.0	NA	NA

Notes:
This table was developed based on the analytical data from Test America Laboratories, 4101 Shuffel Drive NW, North Canton, Ohio, 44720.
B - Estimated result. Result is less than Reporting Limit.
J (Metals) - Method blank contamination. The associate method blank contains the analyte at a reportable level.
J (VOCs & SVOCs) - Estimated result. Result is less than Reporting Limit.
Bold results indicate a detection above lab detection limits.
NT - Dissolved Metals Analysis could not be run due to insuffieint amount of sample

What does "U" Mean ?

Table 3
Greiners Lagoon
Historic Detection Summary Table
Deep Wells

MW-1									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Carbon disulfide (µg/l)	N/A	1,000	< 2.0	< 2.0	0.99 J	< 2.0	0.59 J	0.75 J
SVOCs	bis-2-ethylhexyl phthalate (µg/l)	7.4	6.0	< 40	< 40	< 40	1.3 B, J	1.2 J	11 B
	Phenol (µg/l)	2.8	11,000	2.8	< 20	< 20	< 20	< 20	< 1.0
Metals	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	0.0011 B,J	< 0.005	< 0.005
	Lead (mg/l)	0.014	0.015	0.0052	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	.0079 J	< 0.010	< 0.010	< 0.010
	Zinc (mg/l)	0.08	11.0	0.055	< 0.020	< 0.020	0.0071 B	< 0.020	< 0.020
MW-2									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
SVOCs	bis-2-ethylhexyl phthalate (µg/l)	7.4	6.0	< 40	0.89	< 40	2.5	< 40	< 2.0
	Di-n-butyl phthalate (µg/l)	N/A	3,700	< 20	< 20	0.87 J, B	< 20	< 20	< 1.0
Metals	Arsenic (mg/l)	N/A	0.010	< 0.010	< 0.010	0.0071 B	< 0.010	0.0053 B	0.0055 B
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00074 B
	Lead (mg/l)	0.014	0.015	0.0099	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	0.0098 B, J	< 0.010	< 0.010	< 0.010
	Zinc (mg/l)	0.08	11.0	0.08	0.0075 *B*	< 0.020	< 0.020	.0056 B,J	< 0.020
MW-3									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	480	22,000	< 20	8.8 *B*	6.6 J	6.4 J	< 20	3.8 J
	4-methyl-2-pentanone(µg/l)	170	2,000	< 20	1.7	1.9 J	1.0 J	0.81 J	< 10
SVOCs	bis-2-ethylhexyl phthalate (µg/l)	7.4	6.0	15 B	< 2.0	< 2.0	1.2 J	< 2.0	1.7 J B
	Di-n-butyl phthalate (µg/l)	N/A	3,700	< 20	< 20	0.81 J, B	1.2 J	< 20	< 1.0
Metals	Arsenic (mg/l)	N/A	0.010	< 0.010	< 0.010	0.0036 B	< 0.010	< 0.010	< 0.010
	Antimony (mg/l)	N/A	0.006	< 0.060	< 0.060	< 0.060	0.0036 B,J	< 0.060	< 0.060
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	0.0012 B,J	< 0.005	0.00046 B
	Lead (mg/l)	0.014	0.015	0.014	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium (mg/l)	N/A	0.005	< 0.005	0.003 *B*	< 0.005	< 0.005	< 0.005	< 0.005
	Selenium (mg/l)	N/A	0.050	< 0.005	< 0.005	< 0.005	0.0043 B	< 0.005	< 0.005
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	< 0.010	< 0.010	.0048 B	< 0.010
	Zinc (mg/l)	0.08	11.0	0.061	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020

Table includes results for detected compounds only.

Note: B denotes a Consitiuent detected in Method Blank
J denotes a Constitiuent detected between the MDL and the RL
Deep Well, Perched Off-site, Perched On-site EPC values obtained from Risk Assessment
Metals listed are dissolved (filtered) metals
EPC = Exposure Point Concentration from EE/CA
N/A = Constituent not detected during Risk Assessment Calcualtions and therefore no
Bold Values indicates an EPC exceedance.
Highlighted values indicate an MCL exceedance

Table 4
Greiners Lagoon
Historic Detection Summary Table
Shallow On-site Wells

	MW-4								
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	170,000	22,000	8.3	2.9	3.5 J	3.4 J	5.2 J	3.3 J
	4-methyl-2-pentanone(µg/l)	110,000	2,000	< 20	< 20	< 20	0.46 J	< 20	< 10
	2-Butanone (µg/l)	22,000	7,100	< 20	< 20	< 20	0.57 J	< 20	< 10
	Benzene (µg/l)	2,200	5	1.6	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0
	Toluene (ug/l)	10,000	1,000	< 2.0	< 2.0	< 2.0	< 2.0	0.52 J	< 1.0
SVOCs	bis(2-ethylhexyl) phthalate (µg/l)	N/A	6	< 40	< 40	1.0 J	< 40	< 40	< 8.0
Metals	Arsenic (mg/l)	0.143	0.01	0.018	< 0.010	0.0038 B	< 0.010	< 0.010	< 0.010
	Antimony (mg/l)	0.008	0.006	< 0.060	< 0.060	< 0.060	0.0021 B	< 0.060	< 0.060
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00056 B
	Chromium (mg/l)	0.265	0.1	0.02	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Copper (mg/l)	0.517	1.3	0.038	0.0055 B	0.0059 B	< 0.025	< 0.025	< 0.025
	Lead (mg/l)	3.35	0.015	0.013	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Nickel (mg/l)	0.627	0.73	< 0.040	0.0066 B	0.0095 B	0.0102 B	.0117 B	0.0082 B
	Zinc (mg/l)	1.93	11	0.15	0.0072 B	< 0.020	0.0057 B,J	.0078 B,J	< 0.020
	MW-5								
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	170,000	22,000	500	2,700	120	130	74	130
	Benzene (µg/l)	2,200	5	63	30	22	11	13	13
	4-methyl-2-pentanone(µg/l)	110,000	2,000	80	9,800	< 20	170	290	340
	2-Butanone (MEK) (µg/l)	22,000	7,100	77	200	15 J	32 J	16 J	42 J
	Carbon disulfide (µg/l)	N/A	1,000	< 2.0	< 2.0	3.9 J	1.7 J	2.5 J	1.7 J
	Ethylbenzene (µg/l)	3,800	700	5.7	< 2.0	9.7 J	4.0 J	2.9 J	2.4 J
	Methylene chloride (µg/l)	N/A	5	< 2.0	< 2.0	3.5 J, B	< 2.0	2.8 J,B	< 5.0
	Trichloroethene (µg/l)	N/A	5	< 2.0	< 2.0	6.1 J	4.6 J	3.0 J	2.0 J
	Toluene (µg/l)	10,000	1,000	8.5	< 2.0	39	15	6.3	7
	Xylene (µg/l)	19,000	10,000	11	< 4.0	20	11	6.2 J	5.2 J
SVOCs	Diethyl phthalate (µg/l)	N/A	29,000	< 20	76	< 20	< 20	< 20	< 20
	2,4-Dimethylphenol (ug/l)	N/A	7,300	< 40	< 40	< 40	16 J	< 40	< 100
	Phenol (ug/l)	320,000	11,000	< 20	< 20	< 20	27	< 20	< 50
Metals	Antimony (mg/l)	0.008	0.006	< 0.060	0.0252 B	**0.11**	**0.0914**	**0.155**	**0.104**
	Arsenic (mg/l)	0.143	0.01	0.018	0.0303	0.0833	0.0335	0.0151	0.011
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0007 B
	Chromium (mg/l)	0.265	0.1	0.007	0.0049 B	0.0126	0.0056 B	.0037 B	.0024 B
	Copper (mg/l)	0.517	1.3	< 0.025	< 0.025	< 0.025	0.0128 B	< 0.025	< 0.025
	Lead (mg/l)	3.35	0.015	< 0.003	< 0.003	< 0.003	0.0351	< 0.003	.0021 B
	Nickel (mg/l)	0.627	0.73	< 0.04	0.119	0.069	0.0562	0.0503	0.14
	Selenium (mg/l)	N/A	0.05	< 0.005	0.009	0.0064	0.0068	0.0055	0.0094
	Thallium (mg/l)	N/A	0.002	< 0.010	0.0064 B	< 0.010	< 0.010	< 0.010	< 0.010
	Zinc (mg/l)	1.93	11	0.13	0.0233	0.0174 B	0.0135 B,J	< 0.020	.0057 B, J
	MW-6								
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	170,000	22,000	1,400	13	25	18 J	8,000	230
	4-methyl-2-pentanone(µg/l)	110,000	2,000	600	< 20	0.82 J	< 20	< 20	< 40
	2-Butanone (µg/l)	22,000	7,100	< 20	2.1	2.2 J	2.3 J	< 20	8 J
	Benzene (µg/l)	2,200	5	18	1.5	1.6	< 20	< 20	< 20
	Carbon disulfide (µg/l)	N/A	1,000	< 2.0	< 2.0	0.45 J	< 2.0	< 2.0	< 4.0
	Methylene chloride (ug/l)	N/A	5	< 2.0	< 2.0	< 2.0	< 2.0	69 J,B	< 4.0
SVOCs	Phenol (µg/l)	320,000	11,000	1,400	< 20	< 20	< 20	< 20	< 4.0
Metals	Antimony (mg/l)	0.008	0.006	< 0.060	0.0061 B	0.0042 B	0.006 B	.0285 B	< 0.060
	Arsenic (mg/l)	0.143	0.01	0.066	0.024	0.0459	0.0169	0.13	0.0307
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00055 B
	Chromium (mg/l)	0.265	0.1	< 0.025	< 0.025	< 0.025	< 0.025	.0052 B	< 0.010
	Copper (mg/l)	0.517	1.3	0.041	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
	Nickel (mg/l)	0.627	0.73	< 0.04	0.001 B	0.0102 B	0.0158 B	.0096 B	.0096 B
	Zinc (mg/l)	1.93	11	0.063	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020

Table includes results for detected compounds only.

Table 4 (continued)
Greiners Lagoon
Historic Detection Summary Table
Shallow On-site Wells

MW-7									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	170,000	22,000	19	6.4	20 J	12 J	43	25
	2-Butanone (µg/l)	22,000	7,100	< 20.0	1.5	< 20.0	3.6 J	3.8 J	3.6 J
	Benzene (µg/l)	2,200	5	23	13	9.2	5.7	2.9	1.9
	Carbon disulfide (ug/l)	N/A	1,000	< 2.0	< 2.0	< 2.0	< 2.0	0.64 J	< 1.0
	Ethyl methacrylate (µg/l)	N/A	3,300		< 1.0	< 5.0	< 5.0	< 1.0	0.28 J
	4-methyl-2-pentanone(µg/l)	110,000	2,000	< 20	< 20	< 20	2.7 J	4.4 J	3.4 J
	Toluene (ug/l)	N/A	1000	< 5.0	< 1.0	< 5.0	< 5.0	< 1.0	0.2 J
	Methylene chloride (µg/l)	N/A	5	< 2.0	< 2.0	1.7 J, B	< 2.0	< 2.0	< 1.0
SVOCs	Phenol (µg/l)	320,000	1,000	< 20	< 20	< 20	3.8 J	< 20	< 10
Metals	Antimony (mg/l)	0.0080	0.006	< 0.060	< 0.060	0.0158 B	0.007 B	0.0087 B	< 0.060
	Arsenic (mg/l)	0.143	0.01	0.086	0.0885	**0.246**	**0.192**	**0.264**	0.0757
	Copper (mg/l)	0.517	1.3	0.028	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
	Lead (mg/l)	3.35	0.015	0.0033	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Mercury (mg/l)	0.001	0.002	< 0.020	< 0.020	< 0.020	< 0.020	.00015 B	< 0.020
	Nickel (mg/l)	0.627	0.73	< 0.040	0.0167 B	0.0152 B	0.0194 B	.0202 B	0.053
	Selenium (mg/l)	N/A	0.05	< 0.005	< 0.005	0.0044 B	< 0.005	< 0.005	< 0.005
	Thallium (mg/l)	N/A	0.002	< 0.010	0.0091 B	< 0.010	< 0.010	< 0.010	< 0.010
	Zinc (mg/l)	1.93	11	0.11	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
MW-8									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	170,000	22,000	6.3	2.6	1.2 J	6.9 J	23	45
	Benzene (µg/l)	2,200	5	1.3	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0
	2-Butanone (µg/l)	22,000	7,100	< 20	1.5	< 20	< 20	0.89 J	3 J
	Carbon disulfide (µg/l)	N/A	1,000	< 2.0	< 2.0	< 2.0	< 2.0	0.29 J	< 1.0
	Isobutyl alcohol (µg/l)	N/A	11000		< 50	< 50	<100	< 50	11 J
	Toluene (µg/l)	N/A	1000	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	0.23
	4-methyl-2-pentanone(µg/l)	110,000	2,000	< 20	< 20	< 20	< 20	1.3 J	3.1 J
Metals	Antimony (mg/l)	0.0080	0.006	< 0.060	< 0.060	< 0.060	0.0035 B	.0035 B	< 0.060
	Arsenic (mg/l)	0.143	0.01	0.039	< 0.010	< 0.010	< 0.010	0.039	0.004
	Beryllium (mg/l)	N/A	0.004	< 0.005	< 0.005	< 0.005	< 0.005	.00070 B	.00062 B
	Cadmium (mg/l)	0.017	0.005	< 0.005	< 0.005	< 0.005	< 0.005	.0012 B	< 0.005
	Chromium (mg/l)	0.265	0.1	0.0088	< 0.010	< 0.010	0.0029 B	0.0262	< 0.010
	Copper (mg/l)	0.517	1.3	0.026	0.0043 B	< 0.025	< 0.025	0.0884	< 0.025
	Lead (mg/l)	3.35	0.015	0.0088	< 0.003	< 0.003	< 0.003	0.0221	< 0.003
	Nickel (mg/l)	0.627	0.73	< 0.040	0.0153 B	0.0175 B	0.0259 B	0.0518	.0158 B
	Thallium (mg/l)	N/A	0.002	< 0.010	0.005 B	< 0.010	< 0.010	0.0105	< 0.010
	Zinc (mg/l)	1.93	11	0.12	< 0.020	< 0.020	0.0068 B,J	0.153	.0076 J

Table includes results for detected compounds only.

Note: B denotes a Consitiuent detected in Method Blank
J denotes a Constitiuent detected between the MDL and the RL
Deep Well, Perched Off-site, Perched On-site EPC values obtained from Risk Assessment
Metals listed are dissolved (filtered) metals
EPC = Exposure Point Concentration from EE/CA
N/A = Constituent not detected during Risk Assessment Calcualtions and therefore no EPC applies
Bold Values indicates an EPC exceedance.
Highlighted values indicate an MCL exceedance

Table 5
Greiners Lagoon
Historic Detection Summary Table
Shallow Off-site Wells

MW-9									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	16	9.3 B	4.8 J	23 J	21	28
	Acetonitrile (µg/l)	N/A	1300	< 40	1.5 B	< 40	< 40	< 40	< 20
	2-Butanone (µg/l)	N/A	7100	< 20	1.1	1.0 J	< 20	< 20	2.8 J
	Carbon disulfide (ug/l)	N/A	1000	< 2.0	< 2.0	< 2.0	< 2.0	1.6 J	< 1.0
	Vinyl acetate (µg/l)	N/A	4100	< 4.0	0.67	< 4.0	< 4.0	< 4.0	< 2.0
	Methylene chloride (ug/l)	N/A	5	< 2.0	< 2.0	< 2.0	18	< 2.0	< 2.0
	4-methyl-2-pentanone(µg/l)	15	2000	3.7	0.48	0.47 J	**< 20**	1.8 J	2.2 J
	Toluene (ug/l)	N/A	1000	< 2.0	< 2.0	< 2.0	< 2.0	0.27 J	< 1.0
Metals	Antimony (mg/l)	N/A	0.006	< 0.060	< 0.060	< 0.060	0.0054 B,J	< 0.060	< 0.060
	Arsenic (mg/l)	0.0258	0.01	0.016	0.0195	0.0195	0.0198	**0.0286**	**0.0311**
	Beryllium (mg/l)	0.0055	0.004	< 0.005	< 0.005	< 0.005	0.0011 B,J	< 0.005	< 0.005
	Chromium (mg/l)	0.208	0.1	0.016	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Copper (mg/l)	0.574	1.3	0.035	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
	Lead (mg/l)	0.19	0.015	0.015	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Nickel (mg/l)	0.86	0.73	< 0.040	0.0117 B	0.0055 B	0.0083 B	.0076 B	.0083 B
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	< 0.010	0.0087 B	< 0.010	.0066 B, J
	Zinc (mg/l)	1.27	11	0.13	< 0.020	< 0.020	0.0097 B	.0066 B,J	.0125 B
MW-10									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	10	11 B	12	6.3 J,B	16 J	21
	Toluene (ug/l)	N/A	1000	< 2.0	< 2.0	< 2.0	< 2.0	0.55 J	< 1.0
	4-methyl-2-pentanone(µg/l)	15	2000	**< 20**	0.51	2.8 J	0.36 J	**< 20**	0.34 J
	2-Butanone (µg/l)	N/A	7100	< 20	0.73	0.68 J, B	< 20	< 20	1.5 J
Metals	Arsenic (mg/l)	0.0258	0.01	< 0.010	< 0.010	0.0049 B	< 0.010	< 0.010	.0041 B
	Antimony (mg/l)	N/A	0.006	< 0.010	<0.060	<0.060	<0.060	< 0.010	3 B
	Chromium (mg/l)	0.208	0.1	0.016	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Nickel (mg/l)	0.86	0.73	< 0.040	0.0223 B	.0209 B	.0136 B	.0202 B	.0168 B
	Lead (mg/l)	0.19	0.015	0.0095	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	0.0053 B	< 0.010	.0059 B	.0072 B, J
	Zinc (mg/l)	1.27	11	0.095	0.0108 B	.0128 B	.006 B	.0050 B,J	.0065 B
MW-11									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	11	29 B	46	37	14 J	11 J
	2-Butanone (µg/l)	N/A	7100	< 20	2.9	1.3 J	3.1 J	< 20	< 20
	1,4 Dioxane (ug/l)	N/A	0.67	< 400	50	< 400	< 400	< 400	< 400
	Carbon disulfide	N/A	1000	< 2.0	0.45	< 2.0	< 2.0	1.0 J	< 2.0
	Chloromethane (µg/l)	N/A	190	< 2.0	< 2.0	0.39 J	< 2.0	< 2.0	< 2.0
	Isobutyl alcohol (ug/l)	N/A	11000	< 100	9.2	< 100	< 100	< 100	< 100
	Methylene chloride (ug/l)	N/A	5	< 2.0	< 2.0	< 2.0	2.6	< 2.0	< 2.0
	4-methyl-2-pentanone(µg/l)	15	2000	< 20	5.9	4.4 J	4.6 J	3.3 J	1.6 J
	Toluene (ug/l)	10,000	1000	< 2.0	< 2.0	< 2.0	< 2.0	1.0 J	< 2.0
Metals	Antimony (mg/l)	N/A	0.006	< 0.060	< 0.060	< 0.060	0.0026 B,J	< 0.060	.0029B
	Arsenic (mg/l)	0.0258	0.01	0.011	0.0091 B	0.0055 B	0.0053 B	.0063 B	0.0107
	Beryllium (mg/l)	0.0055	0.004	< 0.005	< 0.005	< 0.005	0.0012 B,J	< 0.005	< 0.005
	Chromium (mg/l)	0.208	0.1	0.012	< 0.005	< 0.005	< 0.005	.0025 B	< 0.010
	Nickel (mg/l)	0.86	0.73	0.04	0.0262 B	0.0312 B	0.026 B	.0270 B	.0296 B
	Lead (mg/l)	0.19	0.015	0.011	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	0.0057 B	< 0.010	< 0.010	.0062 B	.0058 B, J
	Zinc (mg/l)	1.27	11	0.11	0.0242	0.006 B	0.0107 B	.0126 B,J	.0181 B

Table includes results for detected compounds only

Note: B denotes a Consitiuent detected in Method Blank
J denotes a Constitiuent detected between the MDL and the RL
Deep Well, Perched Off-site, Perched On-site EPC values obtained from Risk Assessment
Metals listed are dissolved (filtered) metals
EPC = Exposure Point Concentration from EE/CA
N/A = Constituent not detected during Risk Assessment Calcualtions and therefore no EPC applies
Bold Values indicates an EPC exceedance.
Highlighted values indicate an MCL exceedance

Table 5 (continued)
Greiners Lagoon
Historic Detection Summary Table
Shallow Off-site Wells

	Constituent	EPC	MCL	1998	2006	2007	2008	2009	2010
MW-12									
VOCs	Acetone (µg/l)	2,750	22000	19	15 B	38	8.7 J	12 J	9.1 J
	2-Butanone (µg/l)	N/A	7100	< 20	< 20	1.7 J	< 20	< 20	< 20
	Chloromethane (µg/l)	N/A	190	< 2.0	< 2.0	0.99 J	< 2.0	< 2.0	< 2.0
	Methacrylonitrile (µg/l)	N/A	1	< 4.0	< 4.0	0.62 J	< 4.0	< 4.0	< 4.0
	Methylene Chloride	N/A	5	< 2.0	< 2.0	< 2.0	2.2	< 2.0	< 2.0
	4-methyl-2-pentanone(µg/l)	15	2000	15	7.7	0.91 J	< 20	< 20	< 20
SVOCs	bis-2-ethylhexyl phthalate (µg/l)	N/A	6	< 40	22	< 40	4.5 J,B	< 40	6.7 B, J
Metals	Arsenic (mg/l)	0.0258	0.01	< 0.010	< 0.010	0.0054 B	< 0.010	< 0.010	.0065 B
	Chromium (mg/l)	0.208	0.1	0.023	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Copper (mg/l)	0.574	1.3	0.029	0.0047 B	.0055 B	< 0.025	< 0.025	< 0.025
	Nickel (mg/l)	0.86	0.73	< 0.040	0.046	0.0432	0.040	< 0.040	0.0053
	Lead (mg/l)	0.19	0.015	0.014	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	0.0048 B	0.0076 B	0.049 B	< 0.010	.0093 B, J
	Zinc (mg/l)	1.27	11	0.13	0.0109 B	0.0070 B	0.0152 B,J	< 0.020	.0134 B
MW-13									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	**4,000**	5.4 B	12	7.6 J, B	18 J	21
	Isobutyl alcohol	N/A	11000	< 100	8.5	< 100	< 100	< 100	< 100
	4-methyl-2-pentanone(µg/l)	15	2000	**< 20**	0.38	1.1 J	.054 J	1.3 J	1.3 J
Metals	Arsenic (mg/l)	0.0258	0.01	**0.039**	0.0048 B	0.0047 B	.0063 B	0.0221	0.0234
	Chromium (mg/l)	0.208	0.1	0.039	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Copper (mg/l)	0.574	1.3	0.08	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
	Nickel (mg/l)	0.86	0.73	0.084	0.0034 B	< 0.040	.0033 B	.0125 B	.0112 B
	Lead (mg/l)	0.19	0.015	0.037	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	< 0.010	< 0.010	.0051 B	< 0.010
	Zinc (mg/l)	1.27	11	0.24	0.0068 B	< 0.020	< 0.020	.0098 B,J	< 0.020
MW-14									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	< 20	2 B	4.2 J	1.4 J, B	4.5 J	13
	2-Butanone (µg/l)	N/A	7100	< 20	<10	<10	< 100	< 20	0.57 J
	Isobutyl alcohol	N/A	11000	< 100	6.4	< 100	< 100	< 100	< 50
	4-methyl-2-pentanone(µg/l)	15	2000	**< 20**	**< 20**	0.63 J	**< 20**	**< 20**	0.68 J
Metals	Arsenic (mg/l)	0.0258	0.01	**0.027**	< 0.010	< 0.010	< 0.010	.0088 B	0.0108
	Chromium (mg/l)	0.208	0.1	0.023	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	Copper (mg/l)	0.574	1.3	0.065	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
	Nickel (mg/l)	0.86	0.73	0.066	0.0037 B	< 0.040	0.0064 B	.0157 B	.0195 B
	Lead (mg/l)	0.19	0.015	0.029	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Thallium (mg/l)	N/A	0.002	< 0.010	< 0.010	< 0.010	< 0.010	.0048 B	.0091 B, J
	Zinc (mg/l)	1.27	11	0.21	< 0.020	< 0.020	< 0.020	.0118 B,J	.0051 B
MW-15									
	Constituent	**EPC**	**MCL**	**1998**	**2006**	**2007**	**2008**	**2009**	**2010**
VOCs	Acetone (µg/l)	2,750	22000	NW	< 10	4.2 J	< 10	< 10	1.1 J
Metals	Arsenic (mg/l)	0.0258	0.01	NW	< 0.010	.0036 B	< 0.010	< 0.010	.0037 B
	Nickel (mg/l)	0.86	0.73	NW	0.0048	.0056 B	.0071 B	.0058 B	.007 B
	Zinc (mg/l)	1.27	11	NW	< 0.020	< 0.020	.0116 B	.0052 B,J	.0052 B

Table includes results for detected compounds only

Note: B denotes a Consitiuent detected in Method Blank
J denotes a Constitiuent detected between the MDL and the RL
Deep Well, Perched Off-site, Perched On-site EPC values obtained from Risk Assessment
Metals listed are dissolved (filtered) metals
EPC = Exposure Point Concentration from EE/CA
N/A = Constituent not detected during Risk Assessment Calcualtions and therefore no EPC applies
Bold Values indicates an EPC exceedance.
Highlighted values indicate an MCL exceedance
NW = New well installed in 2006 - no data available for 1998

Appendix A
2010 Site Inspection Logs

Appendix B

EBUFFER® INSPECTION LOG

Site description: Name: Greiners Lagoon
Location: Fremont, OH
Date: 1/29/2010 **Time:** 1030 (AM/PM)
Inspector: Name: Sara Wood Title: PM Company: ERM

Weather conditions (sunny, rainy, temperature, etc.): sunny, cold
Ground conditions (saturated, moist, dry, etc.): covered w/light snow
Understory conditions (grass height, weed density, etc.): dormant-winter

Site conditions:

1. Has the surface been disturbed by rutting, erosion channels, tire tracks, settlement, etc.? Yes/(No)
2. Are there any indications of vandalism or trespassing? Yes/(No)
3. Have the tree planting trenches, tree planting holes, or other areas settled below grade? Yes/(No)
4. Is there ponded water at the site? (Yes)/No as designed, frozen
5. Is significant erosion taking place at the site? Yes/(No)
6. Have the number of live/dead trees changed since the last inspection? Yes/(No)
7. Do the leaves look eaten? Yes/No N/A dormant
8. Do the leaves look discolored? Yes/No N/A dormant
9. Do the leaves look wilted or curled? Yes/No N/A dormant
10. Has the outer bark been damaged by deer rubbing, rabbit gnawing, equipment damage, etc.? Yes/(No)
11. Do the tips of the branches look eaten? Yes/(No)
12. Are there visible animal burrows next to the trees? Yes/(No)
13. Are there visible insects on the tree bark or on the leaves (check the underside)? Yes/(No)
14. Are there holes in the bark, oozing sap, wood shavings, or other characteristics of borer activity? Yes/(No)
15. Are there patches of dead grass? Yes/(No)
16. Do the trees have leaves? Yes/(No) dormant-winter
17. Are the trees losing their leaves? Yes/(No)
18. Are new buds starting to loosen? Yes/(No)

Appendix B

19. Does the grass look green and healthy? Yes/No n/a-dormant

20. How tall is the grass (in inches)? n/a

If the answer to any of the first 15 questions was 'yes', please explain in detail:
Winter - trees and grass are dormant

Maintenance performed since the last inspection: animal burrows repaired - no signs of new burrows

Comments or additional observations: Was on site for drum removal associated w/ annual sampling (i.e. non haz purge water)

Recommended corrective actions: none

Action taken: drum removal (2 w/ H2O, 3 empty)

Action taken by: Name: PSC Date: 1/29/10

Appendix B

GREINER'S LAGOON
O&M INSPECTION LOG

Date: 5/21/2010 **Time:** 11— (AM)/PM
Inspector: Name: Sarah Wood Title: PM Company: ERM

Weather conditions (sunny, rainy, etc.): Cloudy (just stopped raining)
Temperature °F 50's
Wind Direction N Wind Speed (estimated) 1-2 mph
Ground conditions (saturated, moist, dry, etc.): saturated
Understory conditions (grass height, weed density, etc.): partially mowed - top 2-3", sides 1-2'

Site conditions:

1. Has the surface been disturbed by rutting, erosion channels, tire tracks, settlement, etc.? (Yes)/No Grass Mowed Yesterday
2. Are there any indications of vandalism or trespassing? Yes/(No)
3. Is the fence secure? (Yes)/No
4. Are there any breaches or open gates in the fence? Yes/(No)
5. Have the tree planting trenches, tree planting holes, or other areas settled below grade? Yes/(No)
6. Is there ponded water at the site? (Yes)/No Heavy Rain this A.M.
7. Is water flowing to the catchbasin at the northeast corner? (Yes)/No
8. Are there any seeps? Yes/(No) If yes, provide locations in following section.
9. Is there any visible dust in the air? If yes, provide locations in following section. NO
10. Is significant erosion taking place at the site? Yes/(No)
11. Have the number of live/dead trees changed since the last inspection? Yes/(No)
12. Do the leaves look eaten? Yes/(No)
13. Do the leaves look discolored? Yes/(No)
14. Do the leaves look wilted or curled? Yes/(No)
15. Has the outer bark been damaged by deer rubbing, rabbit gnawing, equipment damage, etc.? Yes/(No)
16. Do the tips of the branches look eaten? Yes/(No)
17. Are there visible animal burrows? (Yes)/No Believed to be inactive (filled with water)
18. Are there visible insects on the tree bark or on the leaves (check the underside)? Yes/(No)

Appendix B

19. Are there holes in the bark, oozing sap, wood shavings, or other characteristics of borer activity?
Yes (No)

20. Are there patches of dead grass? Yes (No)

21. Do the trees have leaves? (Yes) No

22. Are the trees losing their leaves? Yes (No)

23. Are new buds starting to loosen? (Yes) No

24. Does the grass look green and healthy? (Yes) No

25. How tall is the grass (in inches)?
Varies. Top 2-3", sides 12-24"

If the answer to any of the first 23 questions was 'yes', please explain in detail:

Water is ponded in certain areas of the Site due to heavy rain earlier this A.M. A former animal burrow was observed near MW-1, but appears to be inactive (no tracks, filled w/ water)

Maintenance performed since the last inspection: 2/3rd of Site has been mowed. Subcontractor will complete rest of Site once it dries up, per a phone conversation yesterday.

Comments or additional observations: Next inspection - need to continue to look for animal burrows

Recommended corrective actions: None at this time

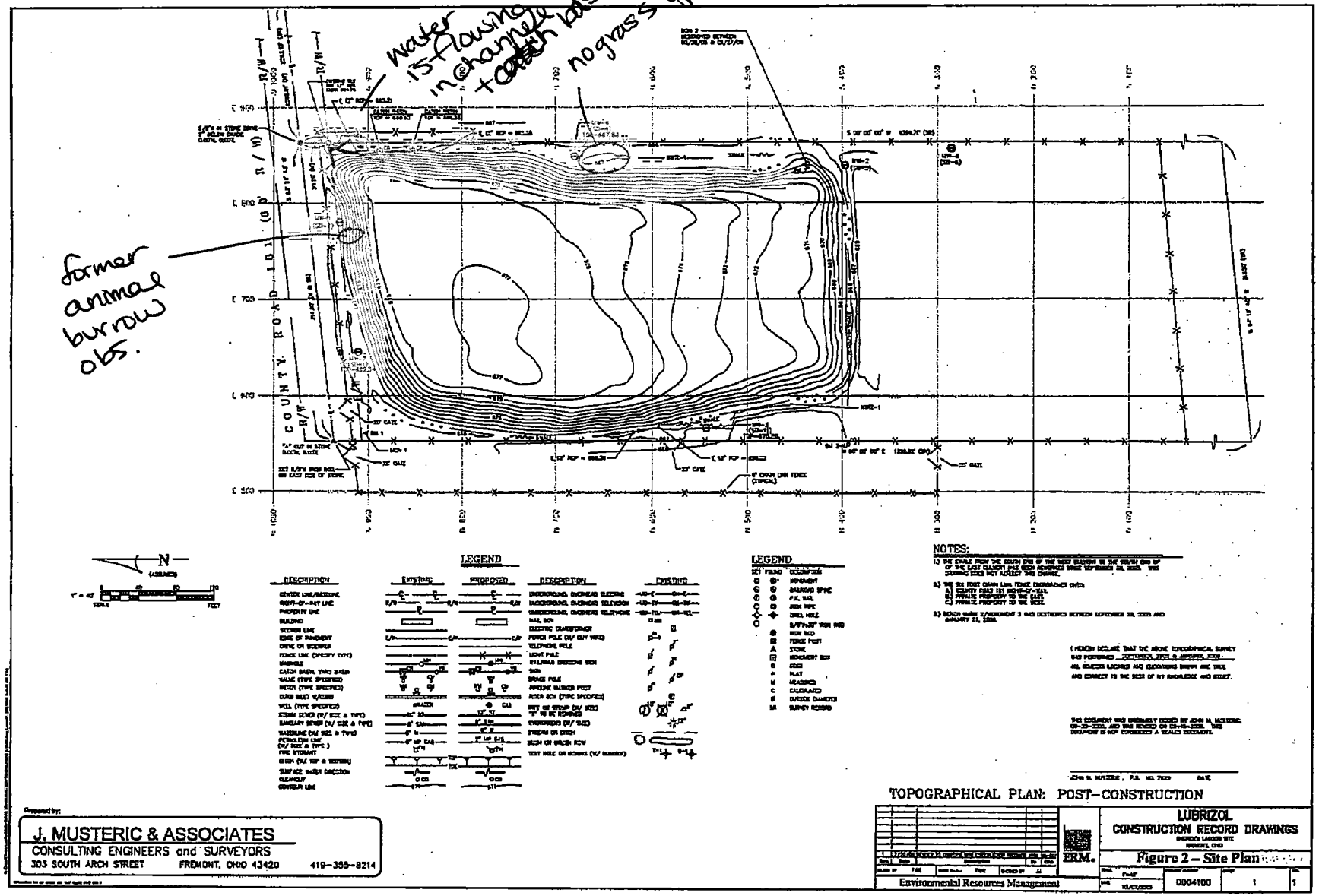
Action taken: photos + video taken

Action taken by: Name: Sarah Wood Date: 5/21/2010

Appendix B

NOTES:

See attached Figure for more details


water is flowing in channel to catch basin
no grass growing
former animal burrow obs.
COUNTY ROAD 191
LEGEND
NOTES:
TOPOGRAPHICAL PLAN: POST-CONSTRUCTION
J. MUSTERIC & ASSOCIATES
CONSULTING ENGINEERS and SURVEYORS
303 SOUTH ARCH STREET FREMONT, OHIO 43420 419-355-8214
LUBRIZOL
CONSTRUCTION RECORD DRAWINGS
Figure 2 – Site Plan
ERM.
Environmental Resources Management
0004100

Appendix B

GREINER'S LAGOON
O&M INSPECTION LOG

Date: 9/7/2010 **Time:** 1130 (AM)/PM
Inspector: Name: AARON FREDERICY Title: GEOLOGIST Company: ERM

Weather conditions (sunny, rainy, etc.): SUNNY
Temperature °F 75°F
Wind Direction N-NE Wind Speed (estimated) 5-10mph
Ground conditions (saturated, moist, dry, etc.): DRY
Understory conditions (grass height, weed density, etc.): 1-2'

Site conditions:

1. Has the surface been disturbed by rutting, erosion channels, tire tracks, settlement, etc.? (Yes)/No
2. Are there any indications of vandalism or trespassing? Yes/(No)
3. Is the fence secure? (Yes)/No
4. Are there any breaches or open gates in the fence? Yes/(No)
5. Have the tree planting trenches, tree planting holes, or other areas settled below grade? Yes/(No)
6. Is there ponded water at the site? Yes/(No)
7. Is water flowing to the catchbasin at the northeast corner? Yes/(No)
8. Are there any seeps? Yes/(No) If yes, provide locations in following section. NO WATER
9. Is there any visible dust in the air? If yes, provide locations in following section. NO
10. Is significant erosion taking place at the site? Yes/(No)
11. Have the number of live/dead trees changed since the last inspection? Yes/(No) SOME BARE AREAS ON THE EAST SIDE OF CAP
12. Do the leaves look eaten? Yes/(No)
13. Do the leaves look discolored? Yes/(No) SOME LOOK EATEN BUT NOT UNUSUAL FOR THE TIME OF YEAR
14. Do the leaves look wilted or curled? Yes/(No)
15. Has the outer bark been damaged by deer rubbing, rabbit gnawing, equipment damage, etc.? Yes/(No)
16. Do the tips of the branches look eaten? Yes/(No)
17. Are there visible animal burrows? (Yes)/No
18. Are there visible insects on the tree bark or on the leaves (check the underside)? Yes/(No)

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19. Are there holes in the bark, oozing sap, wood shavings, or other characteristics of borer activity?
    Yes/(No)

20. Are there patches of dead grass? (Yes)/No

21. Do the trees have leaves? (Yes)/No

22. Are the trees losing their leaves? Yes/(No)

23. Are new buds starting to loosen? Yes/(No)

24. Does the grass look green and healthy? (Yes)/No

25. How tall is the grass (in inches)?
    12-24"

If the answer to any of the first 23 questions was 'yes', please explain in detail:
THE PATCHES OF DEAD GRASS ARE LOCATED ON THE EAST SIDE OF THE LANDFILL. ALSO LOCATED ON THE EAST SIDE ARE 6-8 ANIMAL BURROWS.

Maintenance performed since the last inspection: CAP AND SURROUNDING AREA MOWED WITHIN 2 MONTHS.

Comments or additional observations: WORK ON TRAPPING ANIMALS.

Recommended corrective actions: NONE

Action taken: PICTURES TAKEN

Action taken by: Name: AARON FREDERICK Date: 9/7/10

Appendix B

GREINER'S LAGOON
O&M INSPECTION LOG

Date: 11 / 15 / 2010 **Time:** 12:00 AM/(PM)
Inspector: Name: AARON FREDERICK Title: GEOLOGIST Company: ERM

Weather conditions (sunny, rainy, etc.): SUNNY
Temperature °F 50'F
Wind Direction N-NE Wind Speed (estimated) 5MPH
Ground conditions (saturated, moist, dry, etc.): MOIST
Understory conditions (grass height, weed density, etc.): 12-24"

Site conditions:

1. Has the surface been disturbed by rutting, erosion channels, tire tracks, settlement, etc.? (Yes)/No
2. Are there any indications of vandalism or trespassing? Yes/(No)
3. Is the fence secure? (Yes)/No
4. Are there any breaches or open gates in the fence? Yes/(No)
5. Have the tree planting trenches, tree planting holes, or other areas settled below grade? Yes/(No)
6. Is there ponded water at the site? (Yes)/No
   SOME IN DRAINAGE, NORMAL FOR THIS TIME OF YEAR
7. Is water flowing to the catchbasin at the northeast corner? (Yes)/No
8. Are there any seeps? Yes/(No) If yes, provide locations in following section.
9. Is there any visible dust in the air? If yes, provide locations in following section.
   NO
10. Is significant erosion taking place at the site? Yes/(No)
    SOME BEAR AREAS EAST OF CAP.
11. Have the number of live/dead trees changed since the last inspection? Yes/(No)
12. Do the leaves look eaten? Yes/(No)
13. Do the leaves look discolored? Yes/(No)
14. Do the leaves look wilted or curled? Yes/(No)
15. Has the outer bark been damaged by deer rubbing, rabbit gnawing, equipment damage, etc.? Yes/(No)
16. Do the tips of the branches look eaten? Yes/(No)
17. Are there visible animal burrows? (Yes)/No
18. Are there visible insects on the tree bark or on the leaves (check the underside)? Yes/(No)

Appendix B

19. Are there holes in the bark, oozing sap, wood shavings, or other characteristics of borer activity?
Yes/(No)

20. Are there patches of dead grass? (Yes)/No

21. Do the trees have leaves? Yes/(No)

22. Are the trees losing their leaves? (Yes)/No

23. Are new buds starting to loosen? Yes/(No)

24. Does the grass look green and healthy? (Yes)/No

25. How tall is the grass (in inches)?
12-24"

If the answer to any of the first 23 questions was 'yes', please explain in detail:
THE EAST SIDE OF CAR HAS A ~~FEW~~ FEW AREAS WITH DEAD GRASS AND ANIMAL BURROWS.

Maintenance performed since the last inspection: SITE RECENTLY MOWED, CORN HARVESTED.

Comments or additional observations: SITE COULD USE ALL NEW LOCKS.

Recommended corrective actions: NONE

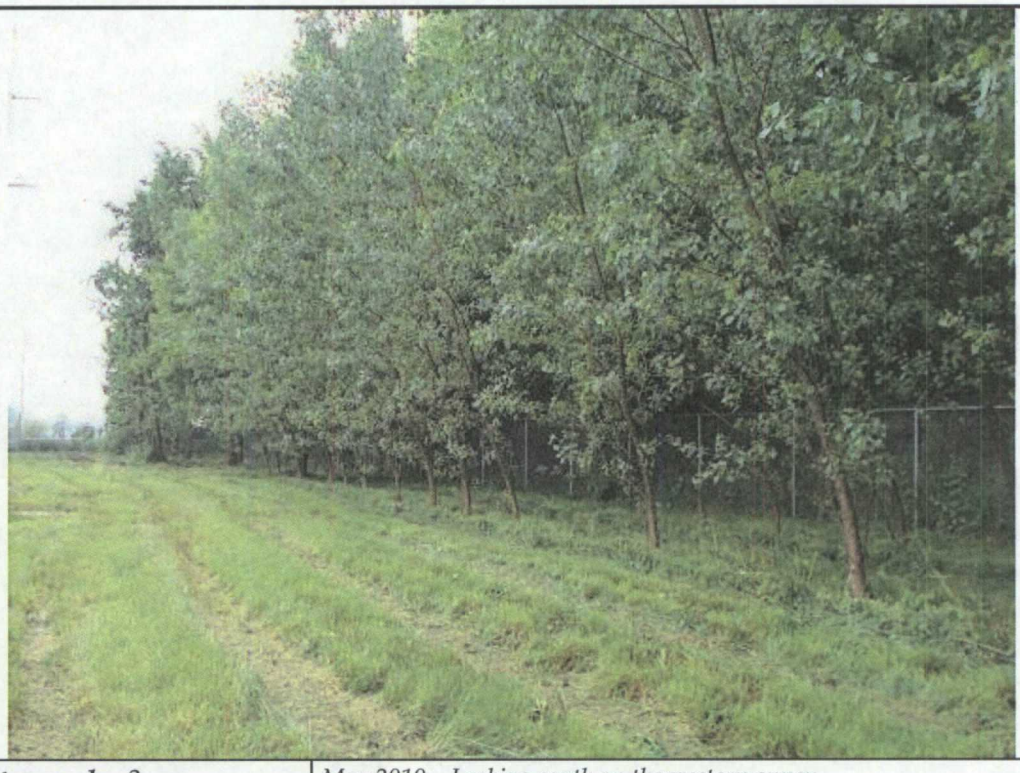
Action taken: NONE

Action taken by: Name: AARON FREDERICK Date: 11/15/10

Appendix B
Site Photographs

Photograph: *1*	*January 2010 – Southwest corner of capped area.*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *2*	January 2010 – Eastern side of cap, looking south	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*



Photograph: *3*	*May 2010 – Looking south on the western annex*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *4*	May 2010 – Looking south from the southeast corner of cap	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *5*	*May 2010 – Animal burrow on the northeastern side of cap*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

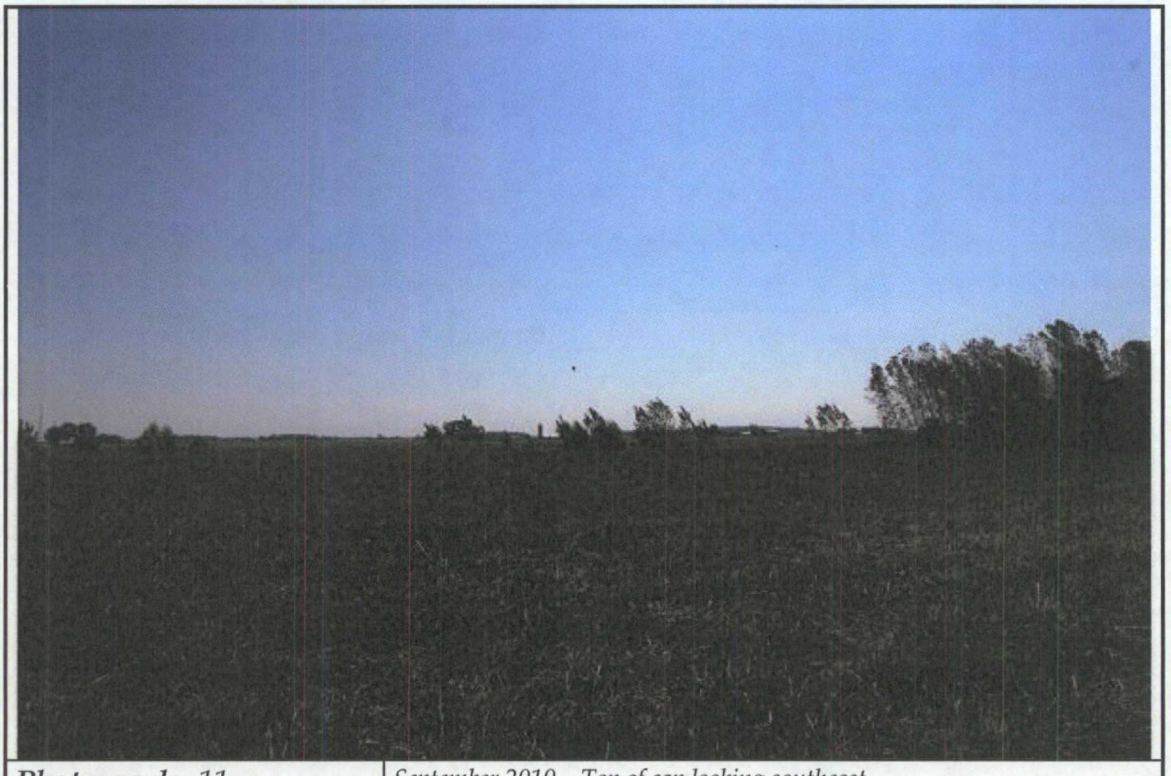
Photograph: *6*	May 2010 – Looking west from the northeast corner of cap	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *7*	*September 2010 – Looking south on the western side of cap.*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *8*	September 2010 – Sign of insect damage to leaves on northwest corner	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *9*	*September 2010 – Top of cap looking north*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *10*	September 2010 – Top of cap looking northeast	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*



Photograph: *11*	*September 2010 – Top of cap looking southeast*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *12*	September 2010 – Top of cap looking south	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *13*	*September 2010 – Looking south on the west side (MW-5 in foreground)*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *14*	September 2010 – Vegetation on the southern portion	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *15*	*September 2010 – Healthy vegetation on the southern portion*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *16*	September 2010 – Southeast of the cap looking north	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *17*	*September 2010 – Looking north on the eastern side*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *18*	September 2010 – Looking west on the northeast corner of cap	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *19*	*September 2010 – Animal burrow on the eastern side of cap*	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Photograph: *20*	September 2010 – Tree growth and storm drain on northeast corner	
Greiner's Lagoon	**ERM**	*Ballville Township, Ohio*

Appendix C
Field Sampling Forms

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-1

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 0942

Screened Interval: 36-46 bgs
Measured Well Depth (ft): 49.57
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 20.93
Length of Water Column (ft): 28.64
1 Well Volume (gal): 4.67 x 3 = 14.0

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	08:13	Initial	20.86	7.17	620	7.12	-	12	-
	08:28	5.0	22.71	7.54	640	7.60	-	11.1	-
	08:44	10.0	22.75	7.47	670	8.13	-	10.8	-
	08:59	14.0	22.83	7.50	670	3.39	-	11.0	-
Low Flow									
11/18/2010	09:25	14.0	20.65	7.48	720	400	-	10.5	-
	09:29	14.5	21.61	7.46	780	29.2	-	11.0	-
	09:33	15.0	21.60	7.39	700	13.2	-	11.0	-
	09:37	15.5	21.62	7.38	670	6.63	-	11.0	-
	09:42	16.0	21.62	7.37	660	4.95	-	11.0	-

Volume Purged Prior to Sample Collection: 16.0
Depth to Water during Sample Collection: 21.62

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks: Duplicate Taken
Recalibration: 7.0 STD @ 6.98 / 12880 STD @ 12850
Top of Pump: 45.11 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-2

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/14/2010
Sample Time: 1040

Screened Interval: 46-56 bgs
Measured Well Depth (ft): 60.37
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 22.57
Length of Water Column (ft): 37.8
1 Well Volume (gal): 6.16 x 3 = 18.5

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/14/2010	09:17	Initial	22.70	11.46	1280	25.2	-	11.1	-
	09:33	5.0	22.76	11.35	1200	33.6	-	10.3	-
	09:47	10.0	22.79	8.45	710	22.6	-	10.4	-
	10:00	15.0	22.77	7.85	730	12.8	-	10.5	-
	10:11	18.5	22.77	7.64	720	10.87	-	11.1	-
Low Flow									
11/14/2010	10:22	18.5	22.70	7.69	750	7.57	-	10.1	-
	10:28	19.0	22.81	7.59	730	13.0	-	11.1	-
	10:32	19.5	22.75	7.53	720	12.3	-	11.2	-
	10:36	20.0	22.75	7.53	720	7.07	-	10.8	-
	10:40	20.5	22.75	7.60	720	5.72	-	10.7	-

Volume Purged Prior to Sample Collection: 20.5
Depth to Water during Sample Collection: 22.75

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Top of Pump: 46.8 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-3

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 1335

Screened Interval: 36-46 bgs
Measured Well Depth (ft): 46.5
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 22.00
Length of Water Column (ft): 24.5
1 Well Volume (gal): 3.99 x 3 = 12.0

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	11:01	Initial	22.11	8.99	710	3.53	-	12.7	-
	11:18	6.0	22.15	8.20	770	5.02	-	11.7	-
	11:38	12.0	22.17	8.13	780	7.36	-	11.6	-
Low Flow									
11/18/2010	13:15	12.0	22.09	8.19	790	10.28	-	12	-
	13:23	12.5	22.17	7.99	780	5.22	-	11.3	-
	13:28	13.0	22.07	8.01	780	4.98	-	11.3	-
	13:35	13.5	22.11	7.99	780	3.15	-	11.2	-

Volume Purged Prior to Sample Collection: 13.5
Depth to Water during Sample Collection: 22.11

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:

Top of Pump: 39.41 ft from TOC

MS/DS Collected

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-4

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 1700

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 15.15
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 9.55
Length of Water Column (ft): 5.6
1 Well Volume (gal): 0.91 x 3 = 2.7

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	13:25	Initial	9.55	6.70	2600	4.32	-	13.2	-
	13:30	2.0	13.51	6.76	2480	166	-	12.9	-
	13:35	3.0	DRY				-		-
11/18/2010	17:00	3.0	10.83	6.71	2660	69.2	-	10.4	-

Volume Purged Prior to Sample Collection: 3.0
Depth to Water during Sample Collection: 10.83

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.04 / 12880 @ 12860
Top of Pump: 13.90 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-5

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/19/2010
Sample Time: 1130

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 17.12
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.34
Length of Water Column (ft): 8.78
1 Well Volume (gal): 1.43 x 3 = 4.3

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	14:25	Initial	8.34	7.62	6050	51.4	-	13.9	-
	14:30	2.0	11.76	7.64	6090	41.1	-	13.9	-
	14:37	3.5	13.29	7.65	6150	39.2	-	14.2	-
	14:39	4.0	DRY						
Left to Recharge									
11/19/2010	11:30	Initial	8.22	8.14	5940	52.00	-	13.8	-

Volume Purged Prior to Sample Collection: 4.0
Depth to Water during Sample Collection: 8.14

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.02 / 12880 STD @ 12890
Top of Pump: 15.92 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-6

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 1611

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 14.16
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 5.91
Length of Water Column (ft): 8.25
1 Well Volume (gal): 1.34 x 3 = 4.0

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	15:05	Initial	5.91	7.20	2480	15.6	-	12.9	-
	15:12	2.0	8.11	7.20	2750	34.0	-	12.7	-
	15:19	4.0	11.85	7.42	4570	153.0	-	13.3	-
Low Flow									
11/18/2010	15:55	4.0	6.56	7.49	3750	185.0	-	10.8	-
	16:01	4.5	7.20	7.55	3230	39.3	-	12.1	-
	16:07	5.0	7.79	7.57	3200	37.4	-	12.1	-
	16:11	5.5	8.14	7.56	3140	27.4	-	12.1	-

Volume Purged Prior to Sample Collection: 5.5
Depth to Water during Sample Collection: 8.14

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 6.97 / 12880 STD @ 12900
Top of Pump: 13.41 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-7

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 1107

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 15.15
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.08
Length of Water Column (ft): 7.07
1 Well Volume (gal): 1.15 x 3 = 3.5

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	08:43	Initial	7.74	7.30	4720	16.7	-	12.8	-
	08:49	2.5	11.45	7.3	4550	35.5	-	13.1	-
	08:55	3.5	14.03	7.41	4760	62.2	-	13.3	-
Low Flow									
11/18/2010	10:32	3.5	8.96	7.44	4830	14.4	-	15.2	-
	10:36	4.0	9.45	7.45	4820	12.5	-	14.8	-
	10:43	4.5	10.03	7.45	4710	8.81	-	14.6	-
	10:50	5.0	10.67	7.38	4730	6.44	-	14.8	-
	10:55	5.5	11.14	7.41	4610	6.69	-	14.7	-
	11:01	6.0	12.63	7.51	4760	6.86	-	14.7	-
	11:07	6.5	12.87	7.64	4780	6.99	-	14.1	-

Volume Purged Prior to Sample Collection: 6.5
Depth to Water during Sample Collection: 12.87

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.05 / 12880 STD @ 12540
Top of Pump: 14.44 ft from TOC

Continued on next page...

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-7 (continued)

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/18/2010
Sample Time: 1107

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 15.15
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.08
Length of Water Column (ft): 7.07
1 Well Volume (gal): 1.15 x 3 = 3.5

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:									
Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
Low Flow									
11/18/2010	11:07	6.5	12.87	7.64	4780	6.99	-	14.1	-
	11:15	7.0	13.25	7.74	4860	6.91	-	14.1	-
	11:21	7.5	13.47	7.72	4780	6.71	-	13.9	-
	11:25	7.75	DRY	-	-	-	-	-	-
	12:20	7.75	10.03	-	-	-	-	-	-

Volume Purged Prior to Sample Collection: 7.75
Depth to Water during Sample Collection: 10.03

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-8

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/19/2010
Sample Time: 0925

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 14.6
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 7.21
Length of Water Column (ft): 7.39
1 Well Volume (gal): 1.20 x 3 = 3.6

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/18/2010	14:00	Initial	6.95	6.89	4410	55.1	-	12.2	-
	14:05	1.0	12.33	6.91	4630	>1000	-	12.2	-
	14:09	1.5	DRY	-	-	-	-	-	-
11/19/2010	09:25	Initial	6.45	6.89	3940	152.0	-	12.7	-

Volume Purged Prior to Sample Collection: 1.5
Depth to Water during Sample Collection: 6.45

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:

Top of Pump: 13.40 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-9

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/17/2010
Sample Time: 1150

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.80
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.84
Length of Water Column (ft): 7.96
1 Well Volume (gal): 1.30 x 3 = 3.9

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/17/2010	10:50	Initial	8.81	7.31	8600	16.0	-	13.2	-
	11:00	2.0	14.81	7.39	8680	249	-	13.1	-
	11:08	4.0	16.08	7.40	8350	>1000	-	12.8	-
Low Flow									
11/17/2010	11:32	4.0	14.16	7.52	8840	425.0	-	12.5	-
	11:37	4.5	14.37	7.51	9310	88.9	-	12.9	-
	11:43	5.0	14.55	7.49	9282	77.1	-	13.2	-
	11:50	5.5	14.89	7.50	9330	98.0	-	13.3	-

Volume Purged Prior to Sample Collection: 5.5
Depth to Water during Sample Collection: 14.89

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.01 / 4.0 STD @ 3.99 / 12880 STD @ 12370
Top of Pump: 15.19 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-10

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/16/2010
Sample Time: 0815

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.87
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 13.09
Length of Water Column (ft): 3.78
1 Well Volume (gal): 0.62 x 3 = 1.8

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/15/2010	15:55	Initial	13.09	6.83	2440	6.64	-	13.3	-
	16:00	1.5		6.9	2460	248	-	13.0	-
	16:07	2.0	15.75	6.91	2460	1.60	-	12.7	-
Low Flow									
11/15/2010	16:18	2.0	15.49	6.94	2630	37.0	-	12.4	-
	16:21	2.25	DRY	-	-	-	-	-	-
11/16/2010	08:15	Initial	13.66	6.81	2620	1.0	-	10.1	-

Volume Purged Prior to Sample Collection: 2.25
Depth to Water during Sample Collection: 16.66

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Top of Pump: 15.63 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-11

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/17/2010
Sample Time: 1320

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.54
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 10.81
Length of Water Column (ft): 5.73
1 Well Volume (gal): 0.93 x 3 = 2.8

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/16/2010	14:22	Initial	10.73	6.94	7650	12.1	-	12.8	-
	14:25	1.5	-	6.96	7750	42.6	-	12.5	-
	14:31	3.0	DRY	-	-	-	-	-	-
11/17/2010	13:20	Initial	10.71	7.01	7820	27.5	-	13.2	-

Volume Purged Prior to Sample Collection: 3.0
Depth to Water during Sample Collection: 10.71

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:

Top of Pump: 14.99 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-12

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/17/2010
Sample Time: 1420

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.64
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 12.85
Length of Water Column (ft): 3.79
1 Well Volume (gal): 0.62 x 3 = 1.9

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: Bailer

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/16/2010	14:25	Initial	13.45	6.68	9080	3.6	-	12.5	-
	14:28	1.0	14.79	6.71	9050	8.3	-	12.1	-
	14:32	1.5	DRY	-	-	-	-	-	-
11/17/2010	14:20	Initial	14.35	6.64	9710	19.8	-	12.3	-

Volume Purged Prior to Sample Collection: 1.5
Depth to Water during Sample Collection: 14.35

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 6.98 / 12880 STD @ 12850
Top of Pump: 13.37 ft from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-13

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/17/2010
Sample Time: 0959

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.8
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.66
Length of Water Column (ft): 8.14
1 Well Volume (gal): 1.33 x 3 = 4.0

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/17/2010	08:50	Initial	8.60	7.78	4970	9.3	-	13.2	-
	08:56	2.0	12.65	7.84	4580	82.0	-	12.6	-
	09:01	4.0	15.22	7.91	4420	156.4	-	12.7	-
Low Flow									
11/17/2010	09:38	4.0	8.57	8.07	6790	179	-	11.5	-
	09:43	4.5	9.15	8.08	7180	105.4	-	13.1	-
	09:47	5.0	9.60	8.08	6640	43.8	-	13.1	-
	09:51	5.5	9.60	8.04	6180	25.1	-	13.0	-
	09:55	6.0	9.60	7.99	5890	18.3	-	12.9	-
	09:59	6.5	9.64	7.98	5840	16.4	-	12.9	-

Volume Purged Prior to Sample Collection: 6.5
Depth to Water during Sample Collection: 9.64

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 6.97 / 12880 STD @ 12860
Top of Pump: 14.73 ft from TOC

Water has a yellow tint; Duplicate taken

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-14

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/16/2010
Sample Time: 0953

Screened Interval: 4-14 bgs
Measured Well Depth (ft): 16.45
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.67
Length of Water Column (ft): 7.78
1 Well Volume (gal): 1.27 x 3 = 3.8

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Fredericy
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/16/2010	09:10	Initial	8.95	7.01	4350	1.94	-	12.4	-
	09:15	2.0	12.38	7.07	4910	115	-	12.2	-
	09:20	4.0	14.55	7.08	5070	2.02	-	12.7	-
Low Flow									
11/16/2010	09:35	4.0	9.25	7.09	5010	33.5	-	11.2	-
	09:40	4.5	9.61	7.04	4930	140	-	12.0	-
	09:44	5.0	10.02	7.01	4690	10.49	-	12.2	-
	09:48	5.5	10.06	7.01	4470	13.2	-	12.1	-
	09:53	6.0	10.11	7.01	4540	8.72	-	12.1	-

Volume Purged Prior to Sample Collection: 6.0
Depth to Water during Sample Collection: 10.11

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.02
Top of Pump: 13.50 from TOC

GROUNDWATER SAMPLING FIELD DATA FORM

Well Identification: MW-15

ERM
30775 Bainbridge Road
Suite 180
Solon, OH 44139

Project: Greiners Lagoon
Project Number: 0047810
Sample Date: 11/16/2010
Sample Time: 1115

Screened Interval: 5-15 bgs
Measured Well Depth (ft): 17.30
Well Inner Diameter (in): 2
Initial Depth to Water (ft): 8.12
Length of Water Column (ft): 9.18
1 Well Volume (gal): 1.50 x 3 = 4.5

Water Volume/ft. for:
2" diameter well = 0.163 x LWC
4" diameter well = 0.653 x LWC
6" diameter well = 1.469 x LWC

Samplers: Aaron Frederick
Sampler Affiliation: ERM

Purge Method/Equipment: Bailer
Stabilization Test Equipment: Hanna 991301 & LaMotte 2020
Sampling Method/Equipment: QED SamplePro Micropurge Pump

Stabilization Test:

Date	Time	Cumulative Volume (gal)	Depth to Water (ft)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (ppt)	Temperature (C)	ORP (mV)
11/16/2010	10:35	Initial	8.11	6.90	750	12.90	-	15.1	-
	10:43	2.0	8.30	6.95	760	475	-	14.0	-
	10:50	4.5	8.19	7.00	890	439	-	13.0	-
Low Flow									
11/16/2010	11:03	4.5	8.15	7.05	1290	839	-	11.5	-
	11:07	5.0	8.26	7.12	1280	187	-	13.0	-
	11:11	5.5	8.26	7.15	1230	116	-	12.9	-
	11:15	6.0	8.25	7.14	1200	66.5	-	12.8	-

Volume Purged Prior to Sample Collection: 6.0
Depth to Water during Sample Collection: 8.25

Analysis/Parameter	Container/Volume	Preservative/Preparation
VAP VOCs	40 mL Vials	HCl
TAL Metals (unfiltered)	1000 mL Poly	HNO_3
TAL Metals (filtered)	1000 mL Poly	HNO_3
SVOCs	1000 mL Amber	None

Remarks:
Recalibration: 7.0 STD @ 7.00
Top of Pump: 14.51 ft from TOC

Appendix D
Laboratory Analytical Data Sheets

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

GREINER'S LAGOON

Lot #: A0K180499

Sarah Gregg

ERM Inc
30775 Bainbridge Road
Suite 180
Solon, OH 44139

TESTAMERICA LABORATORIES, INC.

Approved for release.
Patrick O'Meara
Project Manager
12/10/2010 2:44 PM

Patrick J. O'Meara
Project Manager
patrick.omeara@testamericainc.com

December 10, 2010

CASE NARRATIVE

A0K180499

The following report contains the analytical results for nine water samples and one quality control sample submitted to TestAmerica North Canton by ERM Inc. from the GREINER'S LAGOON Site. The samples were received November 18, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Sarah Gregg on December 09, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Patrick J. O'Meara, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 1.5, 1.6, and 2.0°C.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(es) 0334286. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

Sample(s) MW-11, MW-12, MW-13, and MW-13 DUPLICATE had elevated reporting limits due to foaming.

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(es) 0325050. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

CASE NARRATIVE (continued)

GC/MS SEMIVOLATILES (continued)

Sample(s) MW-10, MW-14, MW-13, MW-13 DUPLICATE, MW-9, MW-11, and MW-12 had elevated reporting limits due to matrix interferences.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

The CCV exceeded method criteria on the high side for Arsenic. Since the sample(s) MW-11, MW-12, and EQUIPMENT BLANK #1 results were below the requested reporting limit the results were accepted.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A0K180499

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-10 11/16/10 08:15 001				
Arsenic - DISSOLVED	4.1 B	10.0	ug/L	SW846 6010B
Thallium - DISSOLVED	7.2 B,J	10.0	ug/L	SW846 6010B
Antimony - DISSOLVED	3.0 B	60.0	ug/L	SW846 6010B
Nickel - DISSOLVED	16.8 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	6.5 B	20.0	ug/L	SW846 6010B
Thallium	10.1 J	10.0	ug/L	SW846 6010B
Nickel	16.2 B	40.0	ug/L	SW846 6010B
Acetone	21	10	ug/L	SW846 8260B
2-Butanone (MEK)	1.5 J	10	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	0.34 J	10	ug/L	SW846 8260B
MW-14 11/16/10 09:53 002				
Arsenic - DISSOLVED	10.8	10.0	ug/L	SW846 6010B
Thallium - DISSOLVED	9.1 B,J	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	19.5 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	5.1 B	20.0	ug/L	SW846 6010B
Arsenic	11.3	10.0	ug/L	SW846 6010B
Thallium	9.0 B,J	10.0	ug/L	SW846 6010B
Nickel	18.7 B	40.0	ug/L	SW846 6010B
Zinc	12.2 B	20.0	ug/L	SW846 6010B
Acetone	13	10	ug/L	SW846 8260B
2-Butanone (MEK)	0.57 J	10	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	0.68 J	10	ug/L	SW846 8260B
MW-15 11/16/10 11:15 003				
Arsenic - DISSOLVED	3.7 B	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	7.0 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	5.2 B	20.0	ug/L	SW846 6010B
Thallium	5.1 B,J	10.0	ug/L	SW846 6010B
Nickel	8.0 B	40.0	ug/L	SW846 6010B
Zinc	12.7 B	20.0	ug/L	SW846 6010B
Acetone	1.1 J	10	ug/L	SW846 8260B
MW-13 11/17/10 09:59 004				
Arsenic - DISSOLVED	23.4	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	11.2 B	40.0	ug/L	SW846 6010B
Arsenic	23.2	10.0	ug/L	SW846 6010B
Lead	3.6	3.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0K180499

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-13 11/17/10 09:59 004				
Thallium	4.9 B,J	10.0	ug/L	SW846 6010B
Nickel	12.0 B	40.0	ug/L	SW846 6010B
Zinc	9.1 B	20.0	ug/L	SW846 6010B
Acetone	21	20	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	1.3 J	20	ug/L	SW846 8260B
MW-13 DUPLICATE 11/17/10 09:59 005				
Arsenic - DISSOLVED	23.6	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	11.3 B	40.0	ug/L	SW846 6010B
Arsenic	21.2	10.0	ug/L	SW846 6010B
Lead	3.2	3.0	ug/L	SW846 6010B
Nickel	10.7 B	40.0	ug/L	SW846 6010B
Zinc	35.4	20.0	ug/L	SW846 6010B
Acetone	20	20	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	1.4 J	20	ug/L	SW846 8260B
MW-9 11/17/10 11:50 006				
Arsenic - DISSOLVED	31.1	10.0	ug/L	SW846 6010B
Thallium - DISSOLVED	6.6 B,J	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	8.3 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	12.5 B	20.0	ug/L	SW846 6010B
Arsenic	33.4	10.0	ug/L	SW846 6010B
Lead	2.8 B	3.0	ug/L	SW846 6010B
Thallium	7.9 B,J	10.0	ug/L	SW846 6010B
Antimony	2.9 B	60.0	ug/L	SW846 6010B
Chromium	4.4 B	10.0	ug/L	SW846 6010B
Copper	6.4 B	25.0	ug/L	SW846 6010B
Nickel	14.3 B	40.0	ug/L	SW846 6010B
Zinc	27.0	20.0	ug/L	SW846 6010B
Fluoranthene	6.2	4.0	ug/L	SW846 8270C
Acetone	28	10	ug/L	SW846 8260B
2-Butanone (MEK)	2.8 J	10	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	2.2 J	10	ug/L	SW846 8260B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0K180499

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-11 11/17/10 13:20 007				
Arsenic - DISSOLVED	10.7	10.0	ug/L	SW846 6010B
Thallium - DISSOLVED	5.8 B,J	10.0	ug/L	SW846 6010B
Antimony - DISSOLVED	2.9 B	60.0	ug/L	SW846 6010B
Nickel - DISSOLVED	29.6 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	18.1 B	20.0	ug/L	SW846 6010B
Arsenic	8.3 B	10.0	ug/L	SW846 6010B
Lead	3.0	3.0	ug/L	SW846 6010B
Thallium	9.8 B,J	10.0	ug/L	SW846 6010B
Nickel	32.0 B	40.0	ug/L	SW846 6010B
Zinc	20.3	20.0	ug/L	SW846 6010B
Acetone	11 J	20	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	1.6 J	20	ug/L	SW846 8260B
MW-12 11/17/10 14:20 008				
Thallium - DISSOLVED	9.3 B,J	10.0	ug/L	SW846 6010B
Arsenic - DISSOLVED	6.5 B	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	53.0	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	13.4 B	20.0	ug/L	SW846 6010B
Thallium	8.6 B,J	10.0	ug/L	SW846 6010B
Arsenic	5.0 B	10.0	ug/L	SW846 6010B
Antimony	2.3 B	60.0	ug/L	SW846 6010B
Cadmium	0.67 B	5.0	ug/L	SW846 6010B
Nickel	50.4	40.0	ug/L	SW846 6010B
Zinc	8.2 B	20.0	ug/L	SW846 6010B
bis(2-Ethylhexyl) phthalate	6.7 J,B	10	ug/L	SW846 8270C
Acetone	9.1 J	20	ug/L	SW846 8260B
EQUIPMENT BLANK #1 11/17/10 15:10 009				
Arsenic - DISSOLVED	3.4 B	10.0	ug/L	SW846 6010B
Thallium - DISSOLVED	6.2 B,J	10.0	ug/L	SW846 6010B
bis(2-Ethylhexyl) phthalate	0.98 J,B	2.0	ug/L	SW846 8270C

ANALYTICAL METHODS SUMMARY

A0K180499

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0K180499

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L98J0	001	MW-10	11/16/10	08:15
L98J3	002	MW-14	11/16/10	09:53
L98J4	003	MW-15	11/16/10	11:15
L98J6	004	MW-13	11/17/10	09:59
L98J7	005	MW-13 DUPLICATE	11/17/10	09:59
L98J9	006	MW-9	11/17/10	11:50
L98KA	007	MW-11	11/17/10	13:20
L98KC	008	MW-12	11/17/10	14:20
L98KE	009	EQUIPMENT BLANK #1	11/17/10	15:10
L98KH	010	TRIP BLANK	11/17/10	16:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Environmental Resources Management Inc

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A0K180499-001 **Work Order #...:** L98J01A6 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0334286
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**21**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	**1.5 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-10

GC/MS Volatiles

Lot-Sample #...: A0K180499-001 **Work Order #...:** L98J01A6 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	**0.34 J**	**10**	**ug/L**
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(75 - 121)
1,2-Dichloroethane-d4	83	(63 - 129)
Toluene-d8	89	(74 - 115)
4-Bromofluorobenzene	99	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-10

GC/MS Volatiles

Lot-Sample #: A0K180499-001 **Work Order #:** L98J01A6 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: MW-10

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-001 **Work Order #...:** L98J01A7 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0325050
Dilution Factor: 10 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	20	ug/L
2,4-Dimethylphenol	ND	20	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
2,4-Dichlorophenol	ND	20	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
4-Chloroaniline	ND	20	ug/L
Hexachlorobutadiene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	20	ug/L
2-Methylnaphthalene	ND	2.0	ug/L
Hexachlorocyclopenta-diene	ND	100	ug/L
2,4,6-Trichloro-phenol	ND	50	ug/L
2,4,5-Trichloro-phenol	ND	50	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Nitroaniline	ND	20	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthylene	ND	2.0	ug/L
2,6-Dinitrotoluene	ND	50	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-10

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-001 **Work Order #...:** L98J01A7 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	20	ug/L
Acenaphthene	ND	2.0	ug/L
2,4-Dinitrophenol	ND	50	ug/L
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	20	ug/L
Fluorene	ND	2.0	ug/L
4-Nitroaniline	ND	20	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	20	ug/L
Hexachlorobenzene	ND	2.0	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	2.0	ug/L
Anthracene	ND	2.0	ug/L
Carbazole	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
Fluoranthene	ND	2.0	ug/L
Pyrene	ND	2.0	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	2.0	ug/L
Chrysene	ND	2.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	20	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	2.0	ug/L
Benzo(k)fluoranthene	ND	2.0	ug/L
Benzo(a)pyrene	ND	2.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	2.0	ug/L
Dibenz(a,h)anthracene	ND	2.0	ug/L
Benzo(ghi)perylene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	48 DIL	(27 - 111)
2-Fluorobiphenyl	51 DIL	(28 - 110)
Terphenyl-d14	71 DIL	(37 - 119)
Phenol-d5	57 DIL	(10 - 110)
2-Fluorophenol	34 DIL	(10 - 110)
2,4,6-Tribromophenol	74 DIL	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-10

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-001 **Work Order #...:** L98J01A7 **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-10

GC/MS Semivolatiles

Lot-Sample #: A0K180499-001 **Work Order #:** L98J01A7 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		2200 J	M	3.5728	ug/L
2-Propenamide, N-(1,1-dimet	2873-97-4	70 NJ	M	4.3965	ug/L
Unknown		120 J	M	4.5676	ug/L
Unknown		130 J	M	5.3164	ug/L
Unknown		130 J	M	5.3378	ug/L
Unknown		150 J	M	5.6052	ug/L
Unknown		140 J	M	5.7069	ug/L
Unknown		99 J	M	6.1241	ug/L
Unknown		28 J	M	6.4396	ug/L
Unknown		38 J	M	6.6001	ug/L
Unknown		48 J	M	6.7499	ug/L
Unknown		47 J	M	6.8675	ug/L
Unknown		33 J	M	7.0494	ug/L
Unknown		160 J	M	7.1617	ug/L
Unknown		43 J	M	7.2954	ug/L
Unknown		700 J	M	7.5735	ug/L
Unknown		91 J	M	8.1833	ug/L
Unknown		120 J	M	8.2956	ug/L
Unknown		50 J	M	8.4775	ug/L
Unknown		160 J	M	8.5042	ug/L
Unknown		120 J	M	8.5577	ug/L
Unknown		37 J	M	8.7342	ug/L
Unknown		29 J	M	8.8626	ug/L
Unknown		1200 J	M	9.0551	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-10

TOTAL Metals

Lot-Sample #...: A0K180499-001 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AA
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AC
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AD
		Dilution Factor: 1				
Thallium	**10.1 J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01AE**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AF
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AG
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AH
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AJ
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AK
		Dilution Factor: 1				
Nickel	**16.2 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01AL**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AM
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AN
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J01A4
		Dilution Factor: 1				

NOTE(S):

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-10

DISSOLVED Metals

Lot-Sample #...: A0K180499-001 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**4.1 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01AP**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AQ
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AR
		Dilution Factor: 1				
Thallium	**7.2 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01AT**
		Dilution Factor: 1				
Antimony	**3.0 B**	**60.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01AU**
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AV
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AW
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01AX
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01A0
		Dilution Factor: 1				
Nickel	**16.8 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01A1**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J01A2
		Dilution Factor: 1				
Zinc	**6.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J01A3**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J01A5
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A0K180499-002 **Work Order #...:** L98J31AH **Matrix.....:** WG
Date Sampled...: 11/16/10 09:53 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0334286
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**13**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	**0.57 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-14

GC/MS Volatiles

Lot-Sample #...: A0K180499-002 **Work Order #...:** L98J31AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	**0.68 J**	**10**	**ug/L**
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(75 - 121)
1,2-Dichloroethane-d4	84	(63 - 129)
Toluene-d8	87	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-14

GC/MS Volatiles

Lot-Sample #: A0K180499-002 **Work Order #:** L98J31AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	4.3 NJ	M	1.6941	ug/L
tert-Butyl Alcohol		350	Q	3.173	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-14

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-002 **Work Order #...:** L98J31AJ **Matrix.....:** WG
Date Sampled...: 11/16/10 09:53 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 20 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	20	ug/L
bis(2-Chloroethyl)-ether	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
2-Methylphenol	ND	20	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	20	ug/L
4-Methylphenol	ND	20	ug/L
N-Nitrosodi-n-propyl-amine	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
Isophorone	ND	20	ug/L
2-Nitrophenol	ND	40	ug/L
2,4-Dimethylphenol	ND	40	ug/L
bis(2-Chloroethoxy) methane	ND	20	ug/L
2,4-Dichlorophenol	ND	40	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
Naphthalene	ND	4.0	ug/L
4-Chloroaniline	ND	40	ug/L
Hexachlorobutadiene	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
2-Methylnaphthalene	ND	4.0	ug/L
Hexachlorocyclopenta-diene	ND	200	ug/L
2,4,6-Trichloro-phenol	ND	100	ug/L
2,4,5-Trichloro-phenol	ND	100	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Nitroaniline	ND	40	ug/L
Dimethyl phthalate	ND	20	ug/L
Acenaphthylene	ND	4.0	ug/L
2,6-Dinitrotoluene	ND	100	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-14

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-002 **Work Order #...:** L98J31AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	40	ug/L
Acenaphthene	ND	4.0	ug/L
2,4-Dinitrophenol	ND	100	ug/L
4-Nitrophenol	ND	100	ug/L
Dibenzofuran	ND	20	ug/L
2,4-Dinitrotoluene	ND	100	ug/L
Diethyl phthalate	ND	20	ug/L
4-Chlorophenyl phenyl ether	ND	40	ug/L
Fluorene	ND	4.0	ug/L
4-Nitroaniline	ND	40	ug/L
4,6-Dinitro-2-methylphenol	ND	100	ug/L
N-Nitrosodiphenylamine	ND	20	ug/L
4-Bromophenyl phenyl ether	ND	40	ug/L
Hexachlorobenzene	ND	4.0	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	4.0	ug/L
Anthracene	ND	4.0	ug/L
Carbazole	ND	20	ug/L
Di-n-butyl phthalate	ND	20	ug/L
Fluoranthene	ND	4.0	ug/L
Pyrene	ND	4.0	ug/L
Butyl benzyl phthalate	ND	20	ug/L
3,3'-Dichlorobenzidine	ND	100	ug/L
Benzo(a)anthracene	ND	4.0	ug/L
Chrysene	ND	4.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	40	ug/L
Di-n-octyl phthalate	ND	20	ug/L
Benzo(b)fluoranthene	ND	4.0	ug/L
Benzo(k)fluoranthene	ND	4.0	ug/L
Benzo(a)pyrene	ND	4.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	4.0	ug/L
Dibenz(a,h)anthracene	ND	4.0	ug/L
Benzo(ghi)perylene	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	55 DIL	(27 - 111)
2-Fluorobiphenyl	55 DIL	(28 - 110)
Terphenyl-d14	69 DIL	(37 - 119)
Phenol-d5	49 DIL	(10 - 110)
2-Fluorophenol	0.0 DIL,*	(10 - 110)
2,4,6-Tribromophenol	69 DIL	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-14

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-002 **Work Order #...:** L98J31AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Environmental Resources Management Inc

MW-14

GC/MS Semivolatiles

Lot-Sample #: A0K180499-002 **Work Order #:** L98J31AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		570 J	M	4.4839	ug/L
Unknown		150 J	M	4.532	ug/L
Unknown		160 J	M	4.6283	ug/L
Unknown		1300 J	M	5.3504	ug/L
Unknown		860 J	M	5.3825	ug/L
Unknown		71 J	M	5.5964	ug/L
Unknown		140 J	M	5.6499	ug/L
Unknown		230 J	M	5.7141	ug/L
Unknown		140 J	M	5.7569	ug/L
Unknown		170 J	M	5.8906	ug/L
Unknown		110 J	M	6.1687	ug/L
Unknown		180 J	M	6.7784	ug/L
Unknown		150 J	M	6.8961	ug/L
Unknown		2700 J	M	7.6021	ug/L
Unknown		93 J	M	8.5488	ug/L
Unknown		330 J	M	9.0784	ug/L
Unknown		130 J	M	9.5597	ug/L
Unknown		230 J	M	10.137	ug/L
Unknown		310 J	M	10.543	ug/L
Unknown		280 J	M	10.864	ug/L
Unknown		210 J	M	11.33	ug/L
Unknown		92 J	M	11.715	ug/L
Unknown		190 J	M	11.87	ug/L
Unknown		75 J	M	12.26	ug/L
Unknown		81 J	M	12.512	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-14

TOTAL Metals

Lot-Sample #...: A0K180499-002 **Matrix.....:** WG
Date Sampled...: 11/16/10 09:53 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**11.3**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AK**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AM
		Dilution Factor: 1				
Thallium	**9.0 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AN**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AU
		Dilution Factor: 1				
Nickel	**18.7 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AW
		Dilution Factor: 1				
Zinc	**12.2 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J31AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-14

DISSOLVED Metals

Lot-Sample #...: A0K180499-002 **Matrix.....:** WG
Date Sampled...: 11/16/10 09:53 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**10.8**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A2
		Dilution Factor: 1				
Thallium	**9.1 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31A3**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AA
		Dilution Factor: 1				
Nickel	**19.5 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J31AD
		Dilution Factor: 1				
Zinc	**5.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J31AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J31AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-15

GC/MS Volatiles

Lot-Sample #...: A0K180499-003 **Work Order #...:** L98J41AH **Matrix.....:** WG
Date Sampled...: 11/16/10 11:15 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0334286
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**1.1 J**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-15

GC/MS Volatiles

Lot-Sample #...: A0K180499-003 **Work Order #...:** L98J41AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(75 - 121)
1,2-Dichloroethane-d4	81	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-15

GC/MS Volatiles

Lot-Sample #: A0K180499-003 **Work Order #:** L98J41AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: MW-15

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-003 **Work Order #...:** L98J41AJ **Matrix.....:** WG
Date Sampled...: 11/16/10 11:15 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-15

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-003 **Work Order #...:** L98J41AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	53	(27 - 111)
2-Fluorobiphenyl	57	(28 - 110)
Terphenyl-d14	75	(37 - 119)
Phenol-d5	54	(10 - 110)
2-Fluorophenol	27	(10 - 110)
2,4,6-Tribromophenol	74	(22 - 120)

Environmental Resources Management Inc

MW-15

GC/MS Semivolatiles

Lot-Sample #: A0K180499-003 **Work Order #:** L98J41AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		39 J	M	3.7138	ug/L
Unknown		4.6 J	M	4.0775	ug/L
Unknown		3.9 J	M	4.3877	ug/L
2-Propenamide, N-(1,1-dimet	2873-97-4	3.3 NJ	M	4.4358	ug/L
Unknown		24 J	M	4.484	ug/L
Unknown		5.5 J	M	4.5321	ug/L
Unknown		11 J	M	4.6391	ug/L
Unknown		3.7 J	M	4.9386	ug/L
Unknown		51 J	M	5.3505	ug/L
Unknown		32 J	M	5.3825	ug/L
Unknown		4.8 J	M	5.4628	ug/L
Unknown		2.9 J	M	5.6553	ug/L
Unknown		8.4 J	M	5.7142	ug/L
Unknown		8.3 J	M	5.7676	ug/L
Unknown		4.4 J	M	5.9067	ug/L
Unknown		2.8 J	M	6.0725	ug/L
Unknown		17 J	M	6.1688	ug/L
Unknown		6.5 J	M	6.4844	ug/L
Unknown		6.1 J	M	6.7839	ug/L
Unknown		5.1 J	M	6.9016	ug/L
Unknown		59 J	M	7.6076	ug/L
Unknown		13 J	M	8.5436	ug/L
Unknown		2.8 J	M	8.7736	ug/L
Unknown		3.9 J	M	8.9073	ug/L
Unknown		19 J	M	9.0731	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-15

TOTAL Metals

Lot-Sample #...: A0K180499-003 **Matrix.....:** WG
Date Sampled...: 11/16/10 11:15 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AK
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AM
		Dilution Factor: 1				
Thallium	**5.1 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41AN**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AU
		Dilution Factor: 1				
Nickel	**8.0 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AW
		Dilution Factor: 1				
Zinc	**12.7 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J41AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-15

DISSOLVED Metals

Lot-Sample #...: A0K180499-003 **Matrix.....:** WG
Date Sampled...: 11/16/10 11:15 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**3.7 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AA
		Dilution Factor: 1				
Nickel	**7.0 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J41AD
		Dilution Factor: 1				
Zinc	**5.2 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J41AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J41AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-13

GC/MS Volatiles

Lot-Sample #...: A0K180499-004 **Work Order #...:** L98J61AH **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**21**	**20**	**ug/L**
Acetonitrile	ND	40	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Allyl chloride	ND	4.0	ug/L
Benzene	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
Chloroprene	ND	4.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	2.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isobutyl alcohol	ND	100	ug/L
Methacrylonitrile	ND	4.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-13

GC/MS Volatiles

Lot-Sample #...: A0K180499-004 **Work Order #...:** L98J61AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	**1.3 J**	**20**	**ug/L**
Propionitrile	ND	8.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(75 - 121)
1,2-Dichloroethane-d4	81	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	103	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-13

GC/MS Volatiles

Lot-Sample #: A0K180499-004 **Work Order #:** L98J61AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	5.3 NJ	M	1.6939	ug/L
tert-Butyl Alcohol		680	Q	3.173	ug/L
Tetrahydrofuran		22	Q	4.404	ug/L
Ethyl Ether		3.6	Q	2.51	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-13

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-004 **Work Order #...:** L98J61AJ **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 20 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	20	ug/L
bis(2-Chloroethyl)-ether	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
2-Methylphenol	ND	20	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	20	ug/L
4-Methylphenol	ND	20	ug/L
N-Nitrosodi-n-propyl-amine	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
Isophorone	ND	20	ug/L
2-Nitrophenol	ND	40	ug/L
2,4-Dimethylphenol	ND	40	ug/L
bis(2-Chloroethoxy) methane	ND	20	ug/L
2,4-Dichlorophenol	ND	40	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
Naphthalene	ND	4.0	ug/L
4-Chloroaniline	ND	40	ug/L
Hexachlorobutadiene	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
2-Methylnaphthalene	ND	4.0	ug/L
Hexachlorocyclopenta-diene	ND	200	ug/L
2,4,6-Trichloro-phenol	ND	100	ug/L
2,4,5-Trichloro-phenol	ND	100	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Nitroaniline	ND	40	ug/L
Dimethyl phthalate	ND	20	ug/L
Acenaphthylene	ND	4.0	ug/L
2,6-Dinitrotoluene	ND	100	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-13

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-004 **Work Order #...:** L98J61AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	40	ug/L
Acenaphthene	ND	4.0	ug/L
2,4-Dinitrophenol	ND	100	ug/L
4-Nitrophenol	ND	100	ug/L
Dibenzofuran	ND	20	ug/L
2,4-Dinitrotoluene	ND	100	ug/L
Diethyl phthalate	ND	20	ug/L
4-Chlorophenyl phenyl ether	ND	40	ug/L
Fluorene	ND	4.0	ug/L
4-Nitroaniline	ND	40	ug/L
4,6-Dinitro-2-methylphenol	ND	100	ug/L
N-Nitrosodiphenylamine	ND	20	ug/L
4-Bromophenyl phenyl ether	ND	40	ug/L
Hexachlorobenzene	ND	4.0	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	4.0	ug/L
Anthracene	ND	4.0	ug/L
Carbazole	ND	20	ug/L
Di-n-butyl phthalate	ND	20	ug/L
Fluoranthene	ND	4.0	ug/L
Pyrene	ND	4.0	ug/L
Butyl benzyl phthalate	ND	20	ug/L
3,3'-Dichlorobenzidine	ND	100	ug/L
Benzo(a)anthracene	ND	4.0	ug/L
Chrysene	ND	4.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	40	ug/L
Di-n-octyl phthalate	ND	20	ug/L
Benzo(b)fluoranthene	ND	4.0	ug/L
Benzo(k)fluoranthene	ND	4.0	ug/L
Benzo(a)pyrene	ND	4.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	4.0	ug/L
Dibenz(a,h)anthracene	ND	4.0	ug/L
Benzo(ghi)perylene	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63 DIL	(27 - 111)
2-Fluorobiphenyl	65 DIL	(28 - 110)
Terphenyl-d14	60 DIL	(37 - 119)
Phenol-d5	72 DIL	(10 - 110)
2-Fluorophenol	55 DIL	(10 - 110)
2,4,6-Tribromophenol	83 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-13

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-004 **Work Order #...:** L98J61AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-13

GC/MS Semivolatiles

Lot-Sample #: A0K180499-004 **Work Order #:** L98J61AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		95 J	M	3.6977	ug/L
Unknown		80 J	M	3.8796	ug/L
Unknown		260 J	M	4.0882	ug/L
Unknown		120 J	M	4.4412	ug/L
Unknown		210 J	M	4.5	ug/L
Unknown		99 J	M	4.5321	ug/L
Unknown		120 J	M	4.623	ug/L
Unknown		1100 J	M	5.3932	ug/L
Unknown		230 J	M	5.4628	ug/L
Unknown		590 J	M	5.6553	ug/L
Unknown		83 J	M	5.7623	ug/L
Unknown		260 J	M	5.7783	ug/L
Unknown		560 J	M	6.1688	ug/L
Unknown		91 J	M	6.2169	ug/L
Unknown		220 J	M	6.4897	ug/L
Unknown		300 J	M	6.6502	ug/L
Unknown		300 J	M	6.7946	ug/L
Unknown		160 J	M	6.9122	ug/L
Unknown		140 J	M	7.3401	ug/L
Unknown		2800 J	M	7.6236	ug/L
Unknown		80 J	M	8.1745	ug/L
Unknown		470 J	M	8.3403	ug/L
Unknown		110 J	M	8.5275	ug/L
Unknown		170 J	M	8.6078	ug/L
Unknown		2700 J	M	9.1105	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-13

TOTAL Metals

Lot-Sample #...: A0K180499-004 **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**23.2**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AK**
		Dilution Factor: 1				
Lead	**3.6**	**3.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AL**
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AM
		Dilution Factor: 1				
Thallium	**4.9 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AN**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AU
		Dilution Factor: 1				
Nickel	**12.0 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AW
		Dilution Factor: 1				
Zinc	**9.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J61AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-13

DISSOLVED Metals

Lot-Sample #...: A0K180499-004 **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**23.4**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AA
		Dilution Factor: 1				
Nickel	**11.2 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J61AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L98J61AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J61AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

GC/MS Volatiles

Lot-Sample #...: A0K180499-005 **Work Order #...:** L98J71AH **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**20**	**20**	**ug/L**
Acetonitrile	ND	40	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Allyl chloride	ND	4.0	ug/L
Benzene	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
Chloroprene	ND	4.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	2.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isobutyl alcohol	ND	100	ug/L
Methacrylonitrile	ND	4.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

GC/MS Volatiles

Lot-Sample #...: A0K180499-005 **Work Order #...:** L98J71AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	**1.4 J**	**20**	**ug/L**
Propionitrile	ND	8.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(75 - 121)
1,2-Dichloroethane-d4	83	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-13 DUPLICATE

GC/MS Volatiles

Lot-Sample #: A0K180499-005 **Work Order #:** L98J71AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	5.6 NJ	M	1.685	ug/L
tert-Butyl Alcohol		390	Q	3.164	ug/L
tetrahydrofuran		22	Q	4.407	ug/L
Ethyl Ether		3.9	Q	2.513	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-005 **Work Order #...:** L98J71AJ **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 20 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	20	ug/L
bis(2-Chloroethyl)-ether	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
2-Methylphenol	ND	20	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	20	ug/L
4-Methylphenol	ND	20	ug/L
N-Nitrosodi-n-propyl-amine	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
Isophorone	ND	20	ug/L
2-Nitrophenol	ND	40	ug/L
2,4-Dimethylphenol	ND	40	ug/L
bis(2-Chloroethoxy) methane	ND	20	ug/L
2,4-Dichlorophenol	ND	40	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
Naphthalene	ND	4.0	ug/L
4-Chloroaniline	ND	40	ug/L
Hexachlorobutadiene	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
2-Methylnaphthalene	ND	4.0	ug/L
Hexachlorocyclopenta-diene	ND	200	ug/L
2,4,6-Trichloro-phenol	ND	100	ug/L
2,4,5-Trichloro-phenol	ND	100	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Nitroaniline	ND	40	ug/L
Dimethyl phthalate	ND	20	ug/L
Acenaphthylene	ND	4.0	ug/L
2,6-Dinitrotoluene	ND	100	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-005 **Work Order #...:** L98J71AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	40	ug/L
Acenaphthene	ND	4.0	ug/L
2,4-Dinitrophenol	ND	100	ug/L
4-Nitrophenol	ND	100	ug/L
Dibenzofuran	ND	20	ug/L
2,4-Dinitrotoluene	ND	100	ug/L
Diethyl phthalate	ND	20	ug/L
4-Chlorophenyl phenyl ether	ND	40	ug/L
Fluorene	ND	4.0	ug/L
4-Nitroaniline	ND	40	ug/L
4,6-Dinitro-2-methylphenol	ND	100	ug/L
N-Nitrosodiphenylamine	ND	20	ug/L
4-Bromophenyl phenyl ether	ND	40	ug/L
Hexachlorobenzene	ND	4.0	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	4.0	ug/L
Anthracene	ND	4.0	ug/L
Carbazole	ND	20	ug/L
Di-n-butyl phthalate	ND	20	ug/L
Fluoranthene	ND	4.0	ug/L
Pyrene	ND	4.0	ug/L
Butyl benzyl phthalate	ND	20	ug/L
3,3'-Dichlorobenzidine	ND	100	ug/L
Benzo(a)anthracene	ND	4.0	ug/L
Chrysene	ND	4.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	40	ug/L
Di-n-octyl phthalate	ND	20	ug/L
Benzo(b)fluoranthene	ND	4.0	ug/L
Benzo(k)fluoranthene	ND	4.0	ug/L
Benzo(a)pyrene	ND	4.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	4.0	ug/L
Dibenz(a,h)anthracene	ND	4.0	ug/L
Benzo(ghi)perylene	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	69 DIL	(27 - 111)
2-Fluorobiphenyl	71 DIL	(28 - 110)
Terphenyl-d14	63 DIL	(37 - 119)
Phenol-d5	66 DIL	(10 - 110)
2-Fluorophenol	38 DIL	(10 - 110)
2,4,6-Tribromophenol	84 DIL	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-005 **Work Order #...:** L98J71AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-13 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #: A0K180499-005 **Work Order #:** L98J71AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		280 J	M	4.0882	ug/L
Unknown		78 J	M	4.4412	ug/L
Unknown		150 J	M	4.4947	ug/L
Unknown		71 J	M	4.5375	ug/L
Unknown		120 J	M	4.6231	ug/L
Unknown		970 J	M	5.3933	ug/L
Unknown		250 J	M	5.4628	ug/L
Unknown		620 J	M	5.6554	ug/L
Unknown		180 J	M	5.7837	ug/L
Unknown		710 J	M	6.1742	ug/L
Unknown		150 J	M	6.217	ug/L
Unknown		290 J	M	6.4898	ug/L
Unknown		360 J	M	6.6502	ug/L
Unknown		320 J	M	6.8	ug/L
Unknown		120 J	M	6.9123	ug/L
Unknown		210 J	M	7.3455	ug/L
Unknown		2500 J	M	7.6344	ug/L
Unknown		120 J	M	8.1799	ug/L
Unknown		560 J	M	8.3404	ug/L
Unknown		120 J	M	8.5276	ug/L
Unknown		130 J	M	8.6078	ug/L
Unknown		140 J	M	8.9234	ug/L
Unknown		2200 J	M	9.1159	ug/L
Unknown		77 J	M	9.1801	ug/L
Unknown		110 J	M	9.3299	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

TOTAL Metals

Lot-Sample #...: A0K180499-005 **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**21.2**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71AK**
		Dilution Factor: 1				
Lead	**3.2**	**3.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71AL**
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AU
		Dilution Factor: 1				
Nickel	**10.7 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AW
		Dilution Factor: 1				
Zinc	**35.4**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J71AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-13 DUPLICATE

DISSOLVED Metals

Lot-Sample #...: A0K180499-005 **Matrix.....:** WG
Date Sampled...: 11/17/10 09:59 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**23.6**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AA
		Dilution Factor: 1				
Nickel	**11.3 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J71AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L98J71AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J71AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-9

GC/MS Volatiles

Lot-Sample #...: A0K180499-006 **Work Order #...:** L98J91AH **Matrix.....:** WG
Date Sampled...: 11/17/10 11:50 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**28**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	**2.8 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-9

GC/MS Volatiles

Lot-Sample #...: A0K180499-006 **Work Order #...:** L98J91AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	**2.2 J**	**10**	**ug/L**
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(75 - 121)
1,2-Dichloroethane-d4	82	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	105	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-9

GC/MS Volatiles

Lot-Sample #: A0K180499-006 **Work Order #:** L98J91AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	2.4 NJ	M	1.6934	ug/L
Unknown		1.4 NJ	M	2.4271	ug/L
tert-Butyl Alcohol		4200	M	3.173	ug/L
Ethyl Ether		2.2	Q	2.51	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-9

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-006 **Work Order #...:** L98J91AJ **Matrix.....:** WG
Date Sampled...: 11/17/10 11:50 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 20 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	20	ug/L
bis(2-Chloroethyl)-ether	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
2-Methylphenol	ND	20	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	20	ug/L
4-Methylphenol	ND	20	ug/L
N-Nitrosodi-n-propyl-amine	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
Isophorone	ND	20	ug/L
2-Nitrophenol	ND	40	ug/L
2,4-Dimethylphenol	ND	40	ug/L
bis(2-Chloroethoxy) methane	ND	20	ug/L
2,4-Dichlorophenol	ND	40	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
Naphthalene	ND	4.0	ug/L
4-Chloroaniline	ND	40	ug/L
Hexachlorobutadiene	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
2-Methylnaphthalene	ND	4.0	ug/L
Hexachlorocyclopenta-diene	ND	200	ug/L
2,4,6-Trichloro-phenol	ND	100	ug/L
2,4,5-Trichloro-phenol	ND	100	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Nitroaniline	ND	40	ug/L
Dimethyl phthalate	ND	20	ug/L
Acenaphthylene	ND	4.0	ug/L
2,6-Dinitrotoluene	ND	100	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-9

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-006 **Work Order #...:** L98J91AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	40	ug/L
Acenaphthene	ND	4.0	ug/L
2,4-Dinitrophenol	ND	100	ug/L
4-Nitrophenol	ND	100	ug/L
Dibenzofuran	ND	20	ug/L
2,4-Dinitrotoluene	ND	100	ug/L
Diethyl phthalate	ND	20	ug/L
4-Chlorophenyl phenyl ether	ND	40	ug/L
Fluorene	ND	4.0	ug/L
4-Nitroaniline	ND	40	ug/L
4,6-Dinitro-2-methylphenol	ND	100	ug/L
N-Nitrosodiphenylamine	ND	20	ug/L
4-Bromophenyl phenyl ether	ND	40	ug/L
Hexachlorobenzene	ND	4.0	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	4.0	ug/L
Anthracene	ND	4.0	ug/L
Carbazole	ND	20	ug/L
Di-n-butyl phthalate	ND	20	ug/L
Fluoranthene	**6.2**	**4.0**	**ug/L**
Pyrene	ND	4.0	ug/L
Butyl benzyl phthalate	ND	20	ug/L
3,3'-Dichlorobenzidine	ND	100	ug/L
Benzo(a)anthracene	ND	4.0	ug/L
Chrysene	ND	4.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	40	ug/L
Di-n-octyl phthalate	ND	20	ug/L
Benzo(b)fluoranthene	ND	4.0	ug/L
Benzo(k)fluoranthene	ND	4.0	ug/L
Benzo(a)pyrene	ND	4.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	4.0	ug/L
Dibenz(a,h)anthracene	ND	4.0	ug/L
Benzo(ghi)perylene	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	64 DIL	(27 - 111)
2-Fluorobiphenyl	61 DIL	(28 - 110)
Terphenyl-d14	46 DIL	(37 - 119)
Phenol-d5	62 DIL	(10 - 110)
2-Fluorophenol	35 DIL	(10 - 110)
2,4,6-Tribromophenol	83 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-9

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-006 **Work Order #...:** L98J91AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-9

GC/MS Semivolatiles

Lot-Sample #: A0K180499-006 **Work Order #:** L98J91AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		110 J	M	2.6975	ug/L
Unknown		1700 J	M	3.7405	ug/L
Unknown		270 J	M	3.7512	ug/L
Unknown		160 J	M	3.7833	ug/L
Unknown		170 J	M	4.0507	ug/L
Unknown		1700 J	M	4.0988	ug/L
Unknown		450 J	M	4.4839	ug/L
Unknown		96 J	M	4.5374	ug/L
Unknown		95 J	M	4.9439	ug/L
Unknown		58 J	M	5.1793	ug/L
Unknown		1100 J	M	5.3504	ug/L
Unknown		600 J	M	5.3825	ug/L
Unknown		140 J	M	5.436	ug/L
Unknown		75 J	M	5.5965	ug/L
Unknown		75 J	M	5.6606	ug/L
Unknown		320 J	M	5.7141	ug/L
Unknown		230 J	M	5.8906	ug/L
Unknown		55 J	M	6.0618	ug/L
Unknown		150 J	M	6.0778	ug/L
Unknown		190 J	M	6.0992	ug/L
Unknown		76 J	M	7.2064	ug/L
Unknown		120 J	M	7.5701	ug/L
Unknown		170 J	M	8.5489	ug/L
Unknown		58 J	M	8.7789	ug/L
Unknown		67 J	M	8.9126	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-9

TOTAL Metals

Lot-Sample #...: A0K180499-006 **Matrix.....:** WG
Date Sampled...: 11/17/10 11:50 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**33.4**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/24/10**	**L98J91AK**
		Dilution Factor: 1				
Lead	**2.8 B**	**3.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AL**
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AM
		Dilution Factor: 1				
Thallium	**7.9 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AN**
		Dilution Factor: 1				
Antimony	**2.9 B**	**60.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AP**
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AR
		Dilution Factor: 1				
Chromium	**4.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AT**
		Dilution Factor: 1				
Copper	**6.4 B**	**25.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AU**
		Dilution Factor: 1				
Nickel	**14.3 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AW
		Dilution Factor: 1				
Zinc	**27.0**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J91AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-9

DISSOLVED Metals

Lot-Sample #...: A0K180499-006 **Matrix.....:** WG
Date Sampled...: 11/17/10 11:50 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**31.1**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/24/10**	**L98J91A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A2
		Dilution Factor: 1				
Thallium	**6.6 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91A3**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AA
		Dilution Factor: 1				
Nickel	**8.3 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98J91AD
		Dilution Factor: 1				
Zinc	**12.5 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98J91AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98J91AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-11

GC/MS Volatiles

Lot-Sample #...: A0K180499-007 **Work Order #...:** L98KA1AH **Matrix.....:** WG
Date Sampled...: 11/17/10 13:20 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**11 J**	**20**	**ug/L**
Acetonitrile	ND	40	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Allyl chloride	ND	4.0	ug/L
Benzene	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
Chloroprene	ND	4.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	2.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isobutyl alcohol	ND	100	ug/L
Methacrylonitrile	ND	4.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-11

GC/MS Volatiles

Lot-Sample #...: A0K180499-007 **Work Order #...:** L98KA1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	**1.6 J**	**20**	**ug/L**
Propionitrile	ND	8.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(75 - 121)
1,2-Dichloroethane-d4	81	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	105	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-11

GC/MS Volatiles

Lot-Sample #: A0K180499-007 **Work Order #:** L98KA1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	3.5 NJ	M	1.6945	ug/L
tert-Butyl Alcohol		340	Q	3.174	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-11

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-007 **Work Order #...:** L98KA1AJ **Matrix.....:** WG
Date Sampled...: 11/17/10 13:20 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0325050
Dilution Factor: 10 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	20	ug/L
2,4-Dimethylphenol	ND	20	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
2,4-Dichlorophenol	ND	20	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
4-Chloroaniline	ND	20	ug/L
Hexachlorobutadiene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	20	ug/L
2-Methylnaphthalene	ND	2.0	ug/L
Hexachlorocyclopenta-diene	ND	100	ug/L
2,4,6-Trichloro-phenol	ND	50	ug/L
2,4,5-Trichloro-phenol	ND	50	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Nitroaniline	ND	20	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthylene	ND	2.0	ug/L
2,6-Dinitrotoluene	ND	50	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-11

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-007 **Work Order #...:** L98KA1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	20	ug/L
Acenaphthene	ND	2.0	ug/L
2,4-Dinitrophenol	ND	50	ug/L
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	20	ug/L
Fluorene	ND	2.0	ug/L
4-Nitroaniline	ND	20	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	20	ug/L
Hexachlorobenzene	ND	2.0	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	2.0	ug/L
Anthracene	ND	2.0	ug/L
Carbazole	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
Fluoranthene	ND	2.0	ug/L
Pyrene	ND	2.0	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	2.0	ug/L
Chrysene	ND	2.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	20	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	2.0	ug/L
Benzo(k)fluoranthene	ND	2.0	ug/L
Benzo(a)pyrene	ND	2.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	2.0	ug/L
Dibenz(a,h)anthracene	ND	2.0	ug/L
Benzo(ghi)perylene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	65 DIL	(27 - 111)
2-Fluorobiphenyl	66 DIL	(28 - 110)
Terphenyl-d14	70 DIL	(37 - 119)
Phenol-d5	67 DIL	(10 - 110)
2-Fluorophenol	55 DIL	(10 - 110)
2,4,6-Tribromophenol	85 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-11

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-007 **Work Order #...:** L98KA1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-11

GC/MS Semivolatiles

Lot-Sample #: A0K180499-007 **Work Order #:** L98KA1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		130 J	M	3.6743	ug/L
Unknown		140 J	M	4.0434	ug/L
Unknown		390 J	M	4.4445	ug/L
Unknown		150 J	M	4.4927	ug/L
Unknown		230 J	M	4.6157	ug/L
Unknown		650 J	M	5.3163	ug/L
Unknown		410 J	M	5.3431	ug/L
Unknown		91 J	M	5.4233	ug/L
Unknown		55 J	M	5.4554	ug/L
Unknown		72 J	M	5.557	ug/L
Unknown		160 J	M	5.6159	ug/L
Unknown		140 J	M	5.6747	ug/L
Unknown		65 J	M	5.8031	ug/L
Unknown		490 J	M	6.1293	ug/L
Unknown		52 J	M	6.1721	ug/L
Unknown		190 J	M	6.4449	ug/L
Unknown		280 J	M	6.6054	ug/L
Unknown		140 J	M	6.7712	ug/L
Unknown		100 J	M	6.8995	ug/L
Unknown		87 J	M	7.3007	ug/L
Unknown		910 J	M	7.5949	ug/L
Unknown		49 J	M	8.2955	ug/L
Unknown		46 J	M	8.4827	ug/L
Unknown		43 J	M	8.5041	ug/L
Unknown		470 J	M	9.0443	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-11

TOTAL Metals

Lot-Sample #...: A0K180499-007 **Matrix.....:** WG
Date Sampled...: 11/17/10 13:20 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**8.3 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AK**
		Dilution Factor: 1				
Lead	**3.0**	**3.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AL**
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AM
		Dilution Factor: 1				
Thallium	**9.8 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AN**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AU
		Dilution Factor: 1				
Nickel	**32.0 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AW
		Dilution Factor: 1				
Zinc	**20.3**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98KA1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-11

DISSOLVED Metals

Lot-Sample #...: A0K180499-007 **Matrix.....:** WG
Date Sampled...: 11/17/10 13:20 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**10.7**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/24/10**	**L98KA1A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1A2
		Dilution Factor: 1				
Thallium	**5.8 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1A3**
		Dilution Factor: 1				
Antimony	**2.9 B**	**60.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1A4**
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AA
		Dilution Factor: 1				
Nickel	**29.6 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KA1AD
		Dilution Factor: 1				
Zinc	**18.1 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KA1AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98KA1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-12

GC/MS Volatiles

Lot-Sample #...: A0K180499-008 **Work Order #...:** L98KC1AH **Matrix.....:** WG
Date Sampled...: 11/17/10 14:20 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**9.1 J**	**20**	**ug/L**
Acetonitrile	ND	40	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Allyl chloride	ND	4.0	ug/L
Benzene	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone (MEK)	ND	20	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
Chloroprene	ND	4.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,4-Dioxane	ND	400	ug/L
Ethylbenzene	ND	2.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isobutyl alcohol	ND	100	ug/L
Methacrylonitrile	ND	4.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-12

GC/MS Volatiles

Lot-Sample #...: A0K180499-008 **Work Order #...:** L98KC1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	20	ug/L
Propionitrile	ND	8.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Xylenes (total)	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(75 - 121)
1,2-Dichloroethane-d4	83	(63 - 129)
Toluene-d8	87	(74 - 115)
4-Bromofluorobenzene	104	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-12

GC/MS Volatiles

Lot-Sample #: A0K180499-008 **Work Order #:** L98KC1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
tert-Butyl Alcohol		660	Q	3.173	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

Environmental Resources Management Inc

Client Sample ID: MW-12

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-008 **Work Order #...:** L98KC1AJ **Matrix.....:** WG
Date Sampled...: 11/17/10 14:20 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0325050
Dilution Factor: 5 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	5.0	ug/L
bis(2-Chloroethyl)-ether	ND	5.0	ug/L
2-Chlorophenol	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
2-Methylphenol	ND	5.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	5.0	ug/L
4-Methylphenol	ND	5.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	5.0	ug/L
Hexachloroethane	ND	5.0	ug/L
Nitrobenzene	ND	5.0	ug/L
Isophorone	ND	5.0	ug/L
2-Nitrophenol	ND	10	ug/L
2,4-Dimethylphenol	ND	10	ug/L
bis(2-Chloroethoxy) methane	ND	5.0	ug/L
2,4-Dichlorophenol	ND	10	ug/L
1,2,4-Trichloro-benzene	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
4-Chloroaniline	ND	10	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
4-Chloro-3-methylphenol	ND	10	ug/L
2-Methylnaphthalene	ND	1.0	ug/L
Hexachlorocyclopenta-diene	ND	50	ug/L
2,4,6-Trichloro-phenol	ND	25	ug/L
2,4,5-Trichloro-phenol	ND	25	ug/L
2-Chloronaphthalene	ND	5.0	ug/L
2-Nitroaniline	ND	10	ug/L
Dimethyl phthalate	ND	5.0	ug/L
Acenaphthylene	ND	1.0	ug/L
2,6-Dinitrotoluene	ND	25	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-12

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-008 **Work Order #...:** L98KC1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	10	ug/L
Acenaphthene	ND	1.0	ug/L
2,4-Dinitrophenol	ND	25	ug/L
4-Nitrophenol	ND	25	ug/L
Dibenzofuran	ND	5.0	ug/L
2,4-Dinitrotoluene	ND	25	ug/L
Diethyl phthalate	ND	5.0	ug/L
4-Chlorophenyl phenyl ether	ND	10	ug/L
Fluorene	ND	1.0	ug/L
4-Nitroaniline	ND	10	ug/L
4,6-Dinitro-2-methylphenol	ND	25	ug/L
N-Nitrosodiphenylamine	ND	5.0	ug/L
4-Bromophenyl phenyl ether	ND	10	ug/L
Hexachlorobenzene	ND	1.0	ug/L
Pentachlorophenol	ND	25	ug/L
Phenanthrene	ND	1.0	ug/L
Anthracene	ND	1.0	ug/L
Carbazole	ND	5.0	ug/L
Di-n-butyl phthalate	ND	5.0	ug/L
Fluoranthene	ND	1.0	ug/L
Pyrene	ND	1.0	ug/L
Butyl benzyl phthalate	ND	5.0	ug/L
3,3'-Dichlorobenzidine	ND	25	ug/L
Benzo(a)anthracene	ND	1.0	ug/L
Chrysene	ND	1.0	ug/L
bis(2-Ethylhexyl) phthalate	**6.7 J,B**	**10**	**ug/L**
Di-n-octyl phthalate	ND	5.0	ug/L
Benzo(b)fluoranthene	ND	1.0	ug/L
Benzo(k)fluoranthene	ND	1.0	ug/L
Benzo(a)pyrene	ND	1.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	1.0	ug/L
Dibenz(a,h)anthracene	ND	1.0	ug/L
Benzo(ghi)perylene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	52 DIL	(27 - 111)
2-Fluorobiphenyl	55 DIL	(28 - 110)
Terphenyl-d14	63 DIL	(37 - 119)
Phenol-d5	36 DIL	(10 - 110)
2-Fluorophenol	21 DIL	(10 - 110)
2,4,6-Tribromophenol	62 DIL	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-12

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-008 **Work Order #...:** L98KC1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

MW-12

GC/MS Semivolatiles

Lot-Sample #: A0K180499-008 **Work Order #:** L98KC1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		39 J	M	4.0436	ug/L
Unknown		140 J	M	4.4019	ug/L
Unknown		51 J	M	4.4929	ug/L
Unknown		72 J	M	4.5624	ug/L
Unknown		160 J	M	4.5945	ug/L
Unknown		48 J	M	4.6266	ug/L
Unknown		23 J	M	4.9528	ug/L
Unknown		30 J	M	5.3379	ug/L
Unknown		37 J	M	5.4342	ug/L
Unknown		38 J	M	5.5572	ug/L
Unknown		270 J	M	5.6161	ug/L
Unknown		110 J	M	5.7444	ug/L
Unknown		30 J	M	6.7714	ug/L
Unknown		32 J	M	6.8997	ug/L
Unknown		31 J	M	6.98	ug/L
Unknown		27 J	M	7.3918	ug/L
Unknown		310 J	M	7.5897	ug/L
Unknown		43 J	M	7.7555	ug/L
Unknown		29 J	M	7.9695	ug/L
Unknown		39 J	M	8.1781	ug/L
Unknown		36 J	M	8.3011	ug/L
Unknown		45 J	M	8.836	ug/L
Unknown		120 J	M	8.9108	ug/L
Unknown		370 J	M	9.0499	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-12

TOTAL Metals

Lot-Sample #...: A0K180499-008 **Matrix.....:** WG
Date Sampled...: 11/17/10 14:20 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Selenium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AM
Thallium	**8.6 B,J**	**10.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AN**
Arsenic	**5.0 B**	**10.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AK**
Lead	ND	3.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AL
Antimony	**2.3 B**	**60.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AP**
Beryllium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AQ
Cadmium	**0.67 B**	**5.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AR**
Chromium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AT
Copper	ND	25.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AU
Nickel	**50.4**	**40.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AV**
Silver	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AW
Zinc	**8.2 B**	**20.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AX**
Mercury	ND	0.20 Dilution Factor: 1	ug/L	SW846 7470A	11/19-11/22/10	L98KC1AF

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-12

DISSOLVED Metals

Lot-Sample #...: A0K180499-008 **Matrix.....:** WG
Date Sampled...: 11/17/10 14:20 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A2
		Dilution Factor: 1				
Thallium	**9.3 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1A3**
		Dilution Factor: 1				
Arsenic	**6.5 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A1
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AA
		Dilution Factor: 1				
Nickel	**53.0**	**40.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KC1AD
		Dilution Factor: 1				
Zinc	**13.4 B**	**20.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KC1AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98KC1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

GC/MS Volatiles

Lot-Sample #...: A0K180499-009 **Work Order #...:** L98KE1AH **Matrix.....:** WQ
Date Sampled...: 11/17/10 15:10 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

GC/MS Volatiles

Lot-Sample #...: A0K180499-009 **Work Order #...:** L98KE1AH **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	85	(63 - 129)
Toluene-d8	89	(74 - 115)
4-Bromofluorobenzene	103	(66 - 117)

Environmental Resources Management Inc

EQUIPMENT BLANK #1

GC/MS Volatiles

Lot-Sample #: A0K180499-009 **Work Order #:** L98KE1AH **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-009 **Work Order #...:** L98KE1AJ **Matrix.....:** WQ
Date Sampled...: 11/17/10 15:10 **Date Received..:** 11/18/10
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-009 **Work Order #...:** L98KE1AJ **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**0.98 J,B**	**2.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	51	(27 - 111)
2-Fluorobiphenyl	53	(28 - 110)
Terphenyl-d14	79	(37 - 119)
Phenol-d5	46	(10 - 110)
2-Fluorophenol	21	(10 - 110)
2,4,6-Tribromophenol	59	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

GC/MS Semivolatiles

Lot-Sample #...: A0K180499-009 **Work Order #...:** L98KE1AJ **Matrix.....:** WQ

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

EQUIPMENT BLANK #1

GC/MS Semivolatiles

Lot-Sample #: A0K180499-009 **Work Order #:** L98KE1AJ **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Oxybenzone	131-57-7	2.5 NJ	M	7.3079	ug/L
Unknown		2.3 J	M	9.1532	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

TOTAL Metals

Lot-Sample #...: A0K180499-009 **Matrix.....:** WQ
Date Sampled...: 11/17/10 15:10 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AK
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AU
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AV
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AX
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98KE1AF
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: EQUIPMENT BLANK #1

DISSOLVED Metals

Lot-Sample #...: A0K180499-009 **Matrix.....:** WQ
Date Sampled...: 11/17/10 15:10 **Date Received..:** 11/18/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0323019						
Arsenic	**3.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KE1A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A2
		Dilution Factor: 1				
Thallium	**6.2 B,J**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L98KE1A3**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AA
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AC
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L98KE1AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L98KE1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0K180499-010 **Work Order #...:** L98KH1AA **Matrix.....:** WQ
Date Sampled...: 11/17/10 16:00 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0K180499-010 **Work Order #...:** L98KH1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	89	(75 - 121)
1,2-Dichloroethane-d4	80	(63 - 129)
Toluene-d8	87	(74 - 115)
4-Bromofluorobenzene	102	(66 - 117)

Environmental Resources Management Inc

TRIP BLANK

GC/MS Volatiles

Lot-Sample #: A0K180499-010 **Work Order #:** L98KH1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MAM2X1AA **Matrix.....:** WATER
MB Lot-Sample #: A0K300000-286
Prep Date.....: 11/29/10
Analysis Date..: 11/29/10 **Prep Batch #...:** 0334286
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	2.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MAM2X1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	80	(75 - 121)
1,2-Dichloroethane-d4	76	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	95	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0K300000-286 B **Work Order #:** MAM2X1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MANTD1AA **Matrix.....:** WATER
MB Lot-Sample #: A0L010000-126

Prep Date.....: 11/30/10
Analysis Date..: 11/30/10 **Prep Batch #...:** 0335126
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	2.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MANTD1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(75 - 121)
1,2-Dichloroethane-d4	82	(63 - 129)
Toluene-d8	89	(74 - 115)
4-Bromofluorobenzene	105	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0L010000-126 B **Work Order #:** MANTD1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K180499 **Work Order #...:** MADNA1AA **Matrix.....:** WATER
MB Lot-Sample #: A0K210000-050

Prep Date.....: 11/22/10
Analysis Date..: 12/01/10 **Prep Batch #...:** 0325050
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K180499 **Work Order #...:** MADNA1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	1.0	ug/L	SW846 8270C
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**1.2 J**	**2.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	48	(27 - 111)
2-Fluorobiphenyl	55	(28 - 110)
Terphenyl-d14	85	(37 - 119)
Phenol-d5	49	(10 - 110)
2-Fluorophenol	33	(10 - 110)
2,4,6-Tribromophenol	61	(22 - 120)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K180499 **Work Order #...:** MADNA1AA **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A0K210000-050 B **Work Order #:** MADNA1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Kepone	143-50-0	ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0K180499 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0K190000-019 **Prep Batch #...:** 0323019						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AA
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AC
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AD
		Dilution Factor: 1				
Thallium	**6.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L99M71AE**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AF
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AG
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AH
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AJ
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AK
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AL
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AM
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71AN
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L99M71AP
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A0K180499 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0K190000-019 **Prep Batch #...:** 0323019						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71A6
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71A7
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71A8
		Dilution Factor: 1				
Thallium	**6.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/19-11/23/10**	**L99M71A9**
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CA
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CC
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CD
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CE
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CF
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CG
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CH
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/19-11/23/10	L99M71CJ
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/19-11/22/10	L99M71CK
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MAM2X1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K300000-286 MAM2X1AD-LCSD
Prep Date.....: 11/29/10 **Analysis Date..:** 11/29/10
Prep Batch #...: 0334286
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(83 - 112)**			**SW846 8260B**
	94	**(83 - 112)**	**0.18**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**93**	**(85 - 110)**			**SW846 8260B**
	94	**(85 - 110)**	**0.49**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**93**	**(78 - 131)**			**SW846 8260B**
	96	**(78 - 131)**	**3.9**	**(0-30)**	**SW846 8260B**
Toluene	**91**	**(84 - 111)**			**SW846 8260B**
	91	**(84 - 111)**	**0.67**	**(0-30)**	**SW846 8260B**
Trichloroethene	**91**	**(76 - 117)**			**SW846 8260B**
	92	**(76 - 117)**	**0.93**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(75 - 121)
	90	(75 - 121)
1,2-Dichloroethane-d4	78	(63 - 129)
	82	(63 - 129)
Toluene-d8	92	(74 - 115)
	91	(74 - 115)
4-Bromofluorobenzene	108	(66 - 117)
	110	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** MANTD1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L010000-126 MANTD1AD-LCSD
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**102**	**(83 - 112)**			**SW846 8260B**
	99	**(83 - 112)**	**2.9**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**100**	**(85 - 110)**			**SW846 8260B**
	97	**(85 - 110)**	**2.6**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**106**	**(78 - 131)**			**SW846 8260B**
	105	**(78 - 131)**	**1.0**	**(0-30)**	**SW846 8260B**
Toluene	**99**	**(84 - 111)**			**SW846 8260B**
	97	**(84 - 111)**	**1.5**	**(0-30)**	**SW846 8260B**
Trichloroethene	**98**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**0.51**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(75 - 121)
	92	(75 - 121)
1,2-Dichloroethane-d4	85	(63 - 129)
	84	(63 - 129)
Toluene-d8	93	(74 - 115)
	94	(74 - 115)
4-Bromofluorobenzene	110	(66 - 117)
	109	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K180499 **Work Order #...:** MADNA1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K210000-050 MADNA1AD-LCSD
Prep Date.....: 11/22/10 **Analysis Date..:** 12/01/10
Prep Batch #...: 0325050
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**71**	**(14 - 112)**			**SW846 8270C**
	72	**(14 - 112)**	**0.39**	**(0-30)**	**SW846 8270C**
2-Chlorophenol	**70**	**(27 - 110)**			**SW846 8270C**
	69	**(27 - 110)**	**1.2**	**(0-30)**	**SW846 8270C**
1,4-Dichlorobenzene	**64**	**(19 - 110)**			**SW846 8270C**
	63	**(19 - 110)**	**1.9**	**(0-30)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**75**	**(37 - 121)**			**SW846 8270C**
	75	**(37 - 121)**	**0.16**	**(0-30)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**65**	**(25 - 110)**			**SW846 8270C**
	64	**(25 - 110)**	**1.8**	**(0-30)**	**SW846 8270C**
4-Chloro-3-methylphenol	**76**	**(39 - 110)**			**SW846 8270C**
	76	**(39 - 110)**	**1.0**	**(0-30)**	**SW846 8270C**
Acenaphthene	**76**	**(40 - 110)**			**SW846 8270C**
	75	**(40 - 110)**	**0.71**	**(0-30)**	**SW846 8270C**
4-Nitrophenol	**77**	**(12 - 130)**			**SW846 8270C**
	74	**(12 - 130)**	**3.2**	**(0-30)**	**SW846 8270C**
2,4-Dinitrotoluene	**85**	**(52 - 123)**			**SW846 8270C**
	85	**(52 - 123)**	**0.46**	**(0-30)**	**SW846 8270C**
Pentachlorophenol	**68**	**(26 - 110)**			**SW846 8270C**
	69	**(26 - 110)**	**1.7**	**(0-30)**	**SW846 8270C**
Pyrene	**79**	**(55 - 120)**			**SW846 8270C**
	78	**(55 - 120)**	**1.0**	**(0-30)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	70	(27 - 111)
	71	(27 - 111)
2-Fluorobiphenyl	73	(28 - 110)
	75	(28 - 110)
Terphenyl-d14	92	(37 - 119)
	92	(37 - 119)
Phenol-d5	69	(10 - 110)
	70	(10 - 110)
2-Fluorophenol	53	(10 - 110)
	51	(10 - 110)
2,4,6-Tribromophenol	83	(22 - 120)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K180499 **Work Order #...:** MADNA1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K210000-050 MADNA1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	82	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K180499 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0K190000-019 **Prep Batch #...:** 0323019					
Arsenic	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AQ
Lead	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AR
Selenium	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AT
Thallium	88	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AU
Antimony	96	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AV
Beryllium	96	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AW
Cadmium	95	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71AX
Chromium	93	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71A0
Copper	91	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71A1
Nickel	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71A2
Silver	92	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71A3
Zinc	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71A4
Mercury	96	(81 - 123)	SW846 7470A Dilution Factor: 1	11/19-11/22/10	L99M71A5

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0K180499 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0K190000-019 **Prep Batch #...:** 0323019					
Arsenic	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CL
Lead	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CM
Selenium	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CN
Thallium	88	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CP
Antimony	96	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CQ
Beryllium	96	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CR
Cadmium	95	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CT
Chromium	93	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CU
Copper	91	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CV
Nickel	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CW
Silver	92	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71CX
Zinc	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/19-11/23/10	L99M71C0
Mercury	96	(81 - 123)	SW846 7470A Dilution Factor: 1	11/19-11/22/10	L99M71C1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K180499 **Work Order #...:** L98QQ1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K180514-001 L98QQ1AD-MSD
Date Sampled...: 11/16/10 13:50 **Date Received..:** 11/18/10
Prep Date.....: 11/30/10 **Analysis Date..:** 11/30/10
Prep Batch #...: 0335126
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**98**	**(72 - 121)**			**SW846 8260B**
	97	**(72 - 121)**	**0.79**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**96**	**(80 - 110)**			**SW846 8260B**
	94	**(80 - 110)**	**2.4**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**103**	**(74 - 135)**			**SW846 8260B**
	104	**(74 - 135)**	**1.1**	**(0-30)**	**SW846 8260B**
Toluene	**96**	**(78 - 114)**			**SW846 8260B**
	95	**(78 - 114)**	**0.92**	**(0-30)**	**SW846 8260B**
Trichloroethene	**96**	**(66 - 120)**			**SW846 8260B**
	96	**(66 - 120)**	**0.14**	**(0-30)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(75 - 121)
	91	(75 - 121)
1,2-Dichloroethane-d4	80	(63 - 129)
	82	(63 - 129)
Toluene-d8	93	(74 - 115)
	91	(74 - 115)
4-Bromofluorobenzene	110	(66 - 117)
	108	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K180499 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0K180499-001 **Prep Batch #...:** 0323019							
Arsenic	112	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01A8
	111	(75 - 125)	0.56	(0-20)	SW846 6010B	11/19-11/23/10	L98J01A9
		Dilution Factor: 1					
Lead	104	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CA
	104	(75 - 125)	0.69	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CC
		Dilution Factor: 1					
Selenium	109	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CD
	108	(75 - 125)	1.1	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CE
		Dilution Factor: 1					
Thallium	97	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CF
	96	(75 - 125)	0.38	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CG
		Dilution Factor: 1					
Antimony	108	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CH
	108	(75 - 125)	0.17	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CJ
		Dilution Factor: 1					
Beryllium	103	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CK
	103	(75 - 125)	0.40	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CL
		Dilution Factor: 1					
Cadmium	101	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CM
	102	(75 - 125)	0.40	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CN
		Dilution Factor: 1					
Chromium	100	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CP
	100	(75 - 125)	0.11	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CQ
		Dilution Factor: 1					
Copper	104	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CR
	104	(75 - 125)	0.13	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CT
		Dilution Factor: 1					
Nickel	105	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CU
	105	(75 - 125)	0.28	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CV
		Dilution Factor: 1					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K180499 **Matrix.....:** WG
Date Sampled...: 11/16/10 08:15 **Date Received..:** 11/18/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	105	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01CW
	104	(75 - 125)	0.98	(0-20)	SW846 6010B	11/19-11/23/10	L98J01CX
		Dilution Factor: 1					
Zinc	110	(75 - 125)			SW846 6010B	11/19-11/23/10	L98J01C0
	109	(75 - 125)	1.1	(0-20)	SW846 6010B	11/19-11/23/10	L98J01C1
		Dilution Factor: 1					
Mercury	88	(69 - 134)			SW846 7470A	11/19-11/22/10	L98J01C2
	94	(69 - 134)	6.4	(0-20)	SW846 7470A	11/19-11/22/10	L98J01C3
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ERM	Client Project Manager: SARAH WOOD	Site Contact: AARON FREDERICK	Lab Contact:	COC No:
Address: 30775 BAINBRIDGE RD STE 180	Telephone: 440-542-0750	Telephone: (216) 403-6773	Telephone:	1 of 1 COCs
City/State/Zip: SOLON, OH 44139	Email: sarah.wood@erm.com	Analysis Turnaround Time (CALENDAR days)	Analyses	For lab use only
Phone: 440 542 0750		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab shipping ☐
Project Name: GREINER'S LAGOON	Method of Shipment/Carrier: UPS			
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) / Grab (G)	VOCs	SVOCs	Dissolved Metals	Total Metals						Sample Specific Notes / Special Instructions:
MW-10	11/16/10	0815		X					2	3			2		X		X	X	X	X						
MW-14	11/16/10	0953		X					2	3			2		X		X	X	X	X						
MW-15	11/16/10	1115		X					2	3			2		X		X	X	X	X						
MW-13	11/17/10	0959		X					2	3			2		X		X	X	X	X						
MW-13 DUPLICATE	11/17/10	0959		X					2	3			2		X		X	X	X	X						
MW-9	11/17/10	1150		X					2	3			2		X		X	X	X	X						
MW-11	11/17/10	1320		X					2	3			2		X		X	X	X	X						
MW-12	11/17/10	1420		X					2	3			2		X		X	X	X	X						
EQUIPMENT BLANK #1	11/17/10	1510		X					2	3			2		X		X	X	X	X						
TRIP BLANK	11/17/10	1600		X						2							X									

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

3 COOLERS

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ERM		UPS		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	11-18-10 1000

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 440K180499
North Canton Facility

Client EEM Project _____ By: _____
Cooler Received on 11-18-10 Opened on 11-18-10 (Signature)
FedEx ☐ UPS ☑ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☑ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity_____ Quantity Unsalvageable_____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☑ None ☐ Other _____
6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps ☑
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

_____
_____
_____
_____
_____
_____

15. SAMPLE CONDITION

Sample(s)_____ were received after the recommended holding time had expired.
Sample(s)_____ were received in a broken container.
Sample(s)_____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 051010-HNO_3; *Sulfuric Acid Lot#* 051010-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
10	<2 <2	11-18-10	AP
14	<2 <2		
15	<2 <2		
13	<2 <2		
13D	<2 <2		
9	<2 <2		
11	<2 <2		
12	<2 <2		

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
EB	≤2 ≤2	11.18.10	JS

Cooler #	Temp. °C	Method	Coolant
B183	2.0	IR	Ice
A163	1.5	↓	↓
A102	1.6		

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

ANALYTICAL REPORT

GRIENER'S LAGOON

Lot #: A0K220421

Sarah Gregg

ERM Inc
30775 Bainbridge Road
Suite 180
Solon, OH 44139

TESTAMERICA LABORATORIES, INC.

Patrick J. O'Meara
Project Manager

December 15, 2010

CASE NARRATIVE

A0K220421

The following report contains the analytical results for ten water samples and one quality control sample submitted to TestAmerica North Canton by ERM Inc. from the GRIENER'S LAGOON Site. The samples were received November 20, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Sarah Gregg on December 14, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the method detection limit and include qualified results where applicable.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Patrick J. O'Meara, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 1.4, 2.8, 3.2, and 3.3°C.

GC/MS VOLATILES

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The pH of the sample(s) MW-5 was greater than 2. The sample was analyzed within the normal 14 day holding time; however, experimental evidence suggests that some aromatic compounds in wastewater samples, notably, Benzene, Toluene, and Ethylbenzene are susceptible to biological degradation if samples are not preserved to a pH of 2.

GC/MS SEMIVOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

There were no client requested Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples in batch(es) 0328322 and 0343044. Therefore, the laboratory has included a Laboratory Control Sample Duplicate (LCSD) in the QC batch. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system.

CASE NARRATIVE (continued)

GC/MS SEMIVOLATILES (continued)

Surrogate recovery is out in sample(s) MW-1 DUPLICATE. Reextraction and/or reanalysis performed in accordance with exceeded criteria corrective action required by QAPjP. Reextraction and/or reanalysis resulted in all surrogate recoveries within QC limits, but the reextraction was performed outside of holding time. Both sets of data are reported.

The internal standard areas were outside acceptance limits for sample(s) MW-6 due to matrix effects. (Refer to IS report following this Case Narrative for additional detail.)

Sample(s) MW-7, MW-6, MW-4, MW-8, and MW-5 had elevated reporting limits due to matrix interferences.

Batch(es) 0328322 had RPDs outside QC criteria in the LCS/LCSD, but recoveries were within QC criteria; therefore, no corrective action was required.

METALS

The sample(s) that contain results between the MDL and the RL were flagged with "B". There is the possibility of false positive or mis-identification at these quantitation levels. The acceptance criteria for the ICB, CCB, and Method Blank are +/- the standard reporting limit (SRL).

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "J". Refer to the sample report pages for the affected analyte(s).

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

□(s10H

TestAmerica North Canton

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: a4hp7.i
Lab File ID: MAD4A1AJ.D
Lab Smp Id: mad4a1aj
Analysis Type: SV
Quant Type: ISTD
Operator: 001710
Method File: \\cansvr11\dd\chem\MSS\a4hp7.i\01203a.b\8270C-625.m
Misc Info:

Calibration Date: 03-DEC-2010
Calibration Time: 08:36
Client Smp ID: MW-6
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 1,4-Dichlorobenze	172173	86087	344346	91674	-46.75	
2 Naphthalene-d8	704877	352439	1409754	325624	-53.80	<-
3 Acenaphthene-d10	419903	209952	839806	197039	-53.08	<-
4 Phenanthrene-d10	680629	340315	1361258	323190	-52.52	<-
5 Chrysene-d12	749049	374525	1498098	378984	-49.40	
6 Perylene-d12	651891	325946	1303782	341839	-47.56	

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 1,4-Dichlorobenze	3.37	2.87	3.87	3.37	-0.00
2 Naphthalene-d8	4.25	3.75	4.75	4.25	-0.00
3 Acenaphthene-d10	5.52	5.02	6.02	5.52	-0.00
4 Phenanthrene-d10	6.60	6.10	7.10	6.59	-0.08
5 Chrysene-d12	8.55	8.05	9.05	8.55	-0.06
6 Perylene-d12	9.85	9.35	10.35	9.85	-0.06

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

EXECUTIVE SUMMARY - Detection Highlights

A0K220421

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-1 11/18/10 09:42 001				
bis(2-Ethylhexyl) phthalate	11 B	2.0	ug/L	SW846 8270C
Carbon disulfide	0.75 J	1.0	ug/L	SW846 8260B
MW-1 DUPLICATE 11/18/10 09:42 002				
Naphthalene	0.62	0.20	ug/L	SW846 8270C
Acetone	1.3 J	10	ug/L	SW846 8260B
Carbon disulfide	0.63 J	1.0	ug/L	SW846 8260B
MW-7 11/18/10 12:20 003				
Arsenic - DISSOLVED	75.7	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	52.9	40.0	ug/L	SW846 6010B
Arsenic	99.7	10.0	ug/L	SW846 6010B
Beryllium	0.50 B	5.0	ug/L	SW846 6010B
Nickel	55.4	40.0	ug/L	SW846 6010B
Zinc	5.6 B,J	20.0	ug/L	SW846 6010B
Acetone	25	10	ug/L	SW846 8260B
Benzene	1.9	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	3.6 J	10	ug/L	SW846 8260B
Ethyl methacrylate	0.28 J	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	3.4 J	10	ug/L	SW846 8260B
Toluene	0.20 J	1.0	ug/L	SW846 8260B
MW-3 11/18/10 13:35 004				
Beryllium - DISSOLVED	0.46 B	5.0	ug/L	SW846 6010B
Beryllium	0.50 B	5.0	ug/L	SW846 6010B
bis(2-Ethylhexyl) phthalate	1.7 J,B	2.0	ug/L	SW846 8270C
Acetone	3.8 J	10	ug/L	SW846 8260B
RINSE BLANK #2 11/18/10 15:18 005				
Beryllium	0.49 B	5.0	ug/L	SW846 6010B
MW-6 11/18/10 16:11 006				
Arsenic - DISSOLVED	30.7	10.0	ug/L	SW846 6010B
Beryllium - DISSOLVED	0.55 B	5.0	ug/L	SW846 6010B
Nickel - DISSOLVED	9.6 B	40.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0K220421

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-6 11/18/10 16:11 006				
Arsenic	31.3	10.0	ug/L	SW846 6010B
Antimony	4.8 B	60.0	ug/L	SW846 6010B
Beryllium	0.57 B	5.0	ug/L	SW846 6010B
Nickel	11.4 B	40.0	ug/L	SW846 6010B
Acetone	230	40	ug/L	SW846 8260B
2-Butanone (MEK)	8.0 J	40	ug/L	SW846 8260B
MW-4 11/18/10 17:00 007				
Beryllium - DISSOLVED	0.56 B	5.0	ug/L	SW846 6010B
Nickel - DISSOLVED	8.2 B	40.0	ug/L	SW846 6010B
Antimony	3.3 B	60.0	ug/L	SW846 6010B
Beryllium	0.60 B	5.0	ug/L	SW846 6010B
Nickel	10.3 B	40.0	ug/L	SW846 6010B
Zinc	17.9 B,J	20.0	ug/L	SW846 6010B
Acetone	3.3 J	10	ug/L	SW846 8260B
MW-8 11/19/10 09:25 008				
Arsenic - DISSOLVED	4.0 B	10.0	ug/L	SW846 6010B
Beryllium - DISSOLVED	0.62 B	5.0	ug/L	SW846 6010B
Nickel - DISSOLVED	15.8 B	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	7.6 B,J	20.0	ug/L	SW846 6010B
Arsenic	10.3	10.0	ug/L	SW846 6010B
Lead	2.9 B	3.0	ug/L	SW846 6010B
Beryllium	0.89 B	5.0	ug/L	SW846 6010B
Chromium	5.2 B	10.0	ug/L	SW846 6010B
Copper	15.5 B	25.0	ug/L	SW846 6010B
Nickel	25.9 B	40.0	ug/L	SW846 6010B
Zinc	34.5 J	20.0	ug/L	SW846 6010B
Acetone	45	10	ug/L	SW846 8260B
2-Butanone (MEK)	3.0 J	10	ug/L	SW846 8260B
Isobutyl alcohol	11 J	50	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	3.1 J	10	ug/L	SW846 8260B
Toluene	0.23 J	1.0	ug/L	SW846 8260B
MW-2 11/19/10 10:40 009				
Arsenic - DISSOLVED	5.5 B	10.0	ug/L	SW846 6010B
Beryllium - DISSOLVED	0.59 B	5.0	ug/L	SW846 6010B
Arsenic	5.9 B	10.0	ug/L	SW846 6010B
Beryllium	0.74 B	5.0	ug/L	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A0K220421

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-5 11/19/10 11:30 010				
Arsenic - DISSOLVED	11.0	10.0	ug/L	SW846 6010B
Lead - DISSOLVED	2.1 B	3.0	ug/L	SW846 6010B
Selenium - DISSOLVED	9.4	5.0	ug/L	SW846 6010B
Antimony - DISSOLVED	104	60.0	ug/L	SW846 6010B
Beryllium - DISSOLVED	0.70 B	5.0	ug/L	SW846 6010B
Chromium - DISSOLVED	2.4 B	10.0	ug/L	SW846 6010B
Nickel - DISSOLVED	140	40.0	ug/L	SW846 6010B
Zinc - DISSOLVED	5.7 B,J	20.0	ug/L	SW846 6010B
Arsenic	12.6	10.0	ug/L	SW846 6010B
Lead	10.2	3.0	ug/L	SW846 6010B
Selenium	7.8	5.0	ug/L	SW846 6010B
Antimony	103	60.0	ug/L	SW846 6010B
Beryllium	0.77 B	5.0	ug/L	SW846 6010B
Chromium	4.4 B	10.0	ug/L	SW846 6010B
Copper	19.1 B	25.0	ug/L	SW846 6010B
Nickel	147	40.0	ug/L	SW846 6010B
Zinc	23.9 J	20.0	ug/L	SW846 6010B
Acetone	130	50	ug/L	SW846 8260B
Benzene	13	5.0	ug/L	SW846 8260B
2-Butanone (MEK)	42 J	50	ug/L	SW846 8260B
Carbon disulfide	1.7 J	5.0	ug/L	SW846 8260B
Ethylbenzene	2.4 J	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	340	50	ug/L	SW846 8260B
Toluene	7.0	5.0	ug/L	SW846 8260B
Trichloroethene	2.0 J	5.0	ug/L	SW846 8260B
Xylenes (total)	5.2 J	10	ug/L	SW846 8260B
TRIP BLANK 11/19/10 12:30 011				
Methylene chloride	1.8	1.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0K220421

PARAMETER	ANALYTICAL METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0K220421

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MAD3T	001	MW-1	11/18/10	09:42
MAD32	002	MW-1 DUPLICATE	11/18/10	09:42
MAD35	003	MW-7	11/18/10	12:20
MAD37	004	MW-3	11/18/10	13:35
MAD39	005	RINSE BLANK #2	11/18/10	15:18
MAD4A	006	MW-6	11/18/10	16:11
MAD4D	007	MW-4	11/18/10	17:00
MAD4E	008	MW-8	11/19/10	09:25
MAD4F	009	MW-2	11/19/10	10:40
MAD4G	010	MW-5	11/19/10	11:30
MAD4R	011	TRIP BLANK	11/19/10	12:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Environmental Resources Management Inc

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: A0K220421-001 **Work Order #...:** MAD3T1A6 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	**0.75 J**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: A0K220421-001 **Work Order #...:** MAD3T1A6 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	110	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	80	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-1

GC/MS Volatiles

Lot-Sample #: A0K220421-001 **Work Order #:** MAD3T1A6 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		38 J	M	1.3697	ug/L
Unknown		2.2 J	M	14.603	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-1

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-001 **Work Order #...:** MAD3T1A7 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-1

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-001 **Work Order #...:** MAD3T1A7 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**11 B**	**2.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	41	(27 - 111)
2-Fluorobiphenyl	44	(28 - 110)
Terphenyl-d14	70	(37 - 119)
Phenol-d5	42	(10 - 110)
2-Fluorophenol	19	(10 - 110)
2,4,6-Tribromophenol	61	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-1

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-001 **Work Order #...:** MAD3T1A7 **Matrix.....:** WG

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

MW-1

GC/MS Semivolatiles

Lot-Sample #: A0K220421-001 **Work Order #:** MAD3T1A7 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Organic Acid		1.1 J	M	3.6661	ug/L
Unknown		0.95 J	M	4.0137	ug/L
Unknown		7.7 J	M	4.0565	ug/L
Unknown		1.6 J	M	4.4577	ug/L
Unknown		4.4 J	M	5.3134	ug/L
Unknown		2.8 J	M	5.3509	ug/L
Unknown		3.4 J	M	6.1371	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-1

TOTAL Metals

Lot-Sample #...: A0K220421-001 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AA
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AC
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AD
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AE
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AF
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AG
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AH
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AJ
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AK
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AL
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AM
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AN
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD3T1A4
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-1

DISSOLVED Metals

Lot-Sample #...: A0K220421-001 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AP
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AQ
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AR
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AT
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AU
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AV
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AW
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1AX
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1A0
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1A1
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1A2
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD3T1A3
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD3T1A5
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Volatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD321AH **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**1.3 J**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	**0.63 J**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Volatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD321AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(75 - 121)
1,2-Dichloroethane-d4	110	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	82	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-1 DUPLICATE

GC/MS Volatiles

Lot-Sample #: A0K220421-002 **Work Order #:** MAD321AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		27 J	M	1.3699	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD321AJ **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	**0.62**	**0.20**	**ug/L**
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD321AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	17 *	(27 - 111)
2-Fluorobiphenyl	18 *	(28 - 110)
Terphenyl-d14	23 *	(37 - 119)
Phenol-d5	16	(10 - 110)
2-Fluorophenol	4.9 *	(10 - 110)
2,4,6-Tribromophenol	18 *	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD321AJ **Matrix.....:** WG

NOTE(S):

* Surrogate recovery is outside stated control limits.

Environmental Resources Management Inc

MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #: A0K220421-002 **Work Order #:** MAD321AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Aromatic		0.82 JA	M	2.6711	ug/L
Unknown		2.7 J	M	4.0564	ug/L
Unknown		0.88 J	M	6.1317	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD322AJ **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10
Prep Date.....: 12/09/10 **Analysis Date..:** 12/10/10
Prep Batch #...: 0343044
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-002 **Work Order #...:** MAD322AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	58	(27 - 111)
2-Fluorobiphenyl	57	(28 - 110)
Terphenyl-d14	74	(37 - 119)
Phenol-d5	20	(10 - 110)
2-Fluorophenol	36	(10 - 110)
2,4,6-Tribromophenol	69	(22 - 120)

Environmental Resources Management Inc

MW-1 DUPLICATE

GC/MS Semivolatiles

Lot-Sample #: A0K220421-002 **Work Order #:** MAD322AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		3.4 J	M	4.1357	ug/L
Unknown		1.3 J	M	5.4408	ug/L
Unknown Organic Acid		3.5 J	M	7.5481	ug/L
Unknown Organic Acid		1.1 J	M	7.6016	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

TOTAL Metals

Lot-Sample #...: A0K220421-002 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AK
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AP
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AQ
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AU
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AV
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AX
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD321AF
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-1 DUPLICATE

DISSOLVED Metals

Lot-Sample #...: A0K220421-002 **Matrix.....:** WG
Date Sampled...: 11/18/10 09:42 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A0
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AA
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AC
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD321AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD321AG
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-7

GC/MS Volatiles

Lot-Sample #...: A0K220421-003 **Work Order #...:** MAD351AH **Matrix.....:** WG
Date Sampled...: 11/18/10 12:20 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**25**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	**1.9**	**1.0**	**ug/L**
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	**3.6 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	**0.28 J**	**1.0**	**ug/L**
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-7

GC/MS Volatiles

Lot-Sample #...: A0K220421-003 **Work Order #...:** MAD351AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	**3.4 J**	**10**	**ug/L**
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**0.20 J**	**1.0**	**ug/L**
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(75 - 121)
1,2-Dichloroethane-d4	115	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	86	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-7

GC/MS Volatiles

Lot-Sample #: A0K220421-003 **Work Order #:** MAD351AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	2.7 NJ	M	1.6424	ug/L
Propanal, 2-methyl-	78-84-2	1.4 NJ	M	4.4173	ug/L
Unknown		1.2 J	M	8.0104	ug/L
Undecanol-3	6929-08-4	1.3 NJ	M	9.3386	ug/L
Unknown		3.6 J	M	9.6232	ug/L
Unknown		1.0 J	M	13.346	ug/L
Unknown		5.7 J	M	13.429	ug/L
Unknown		2.4 J	M	14.082	ug/L
tert-Butyl Alcohol		690	Q	3.943	ug/L
Ethyl Ether		2.7	Q	2.733	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-7

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-003 **Work Order #...:** MAD351AJ **Matrix.....:** WG
Date Sampled...: 11/18/10 12:20 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 10 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	10	ug/L
bis(2-Chloroethyl)-ether	ND	10	ug/L
2-Chlorophenol	ND	10	ug/L
1,3-Dichlorobenzene	ND	10	ug/L
1,4-Dichlorobenzene	ND	10	ug/L
1,2-Dichlorobenzene	ND	10	ug/L
2-Methylphenol	ND	10	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	10	ug/L
4-Methylphenol	ND	10	ug/L
N-Nitrosodi-n-propyl-amine	ND	10	ug/L
Hexachloroethane	ND	10	ug/L
Nitrobenzene	ND	10	ug/L
Isophorone	ND	10	ug/L
2-Nitrophenol	ND	20	ug/L
2,4-Dimethylphenol	ND	20	ug/L
bis(2-Chloroethoxy) methane	ND	10	ug/L
2,4-Dichlorophenol	ND	20	ug/L
1,2,4-Trichloro-benzene	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
4-Chloroaniline	ND	20	ug/L
Hexachlorobutadiene	ND	10	ug/L
4-Chloro-3-methylphenol	ND	20	ug/L
2-Methylnaphthalene	ND	2.0	ug/L
Hexachlorocyclopenta-diene	ND	100	ug/L
2,4,6-Trichloro-phenol	ND	50	ug/L
2,4,5-Trichloro-phenol	ND	50	ug/L
2-Chloronaphthalene	ND	10	ug/L
2-Nitroaniline	ND	20	ug/L
Dimethyl phthalate	ND	10	ug/L
Acenaphthylene	ND	2.0	ug/L
2,6-Dinitrotoluene	ND	50	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-7

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-003 **Work Order #...:** MAD351AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	20	ug/L
Acenaphthene	ND	2.0	ug/L
2,4-Dinitrophenol	ND	50	ug/L
4-Nitrophenol	ND	50	ug/L
Dibenzofuran	ND	10	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Diethyl phthalate	ND	10	ug/L
4-Chlorophenyl phenyl ether	ND	20	ug/L
Fluorene	ND	2.0	ug/L
4-Nitroaniline	ND	20	ug/L
4,6-Dinitro-2-methylphenol	ND	50	ug/L
N-Nitrosodiphenylamine	ND	10	ug/L
4-Bromophenyl phenyl ether	ND	20	ug/L
Hexachlorobenzene	ND	2.0	ug/L
Pentachlorophenol	ND	50	ug/L
Phenanthrene	ND	2.0	ug/L
Anthracene	ND	2.0	ug/L
Carbazole	ND	10	ug/L
Di-n-butyl phthalate	ND	10	ug/L
Fluoranthene	ND	2.0	ug/L
Pyrene	ND	2.0	ug/L
Butyl benzyl phthalate	ND	10	ug/L
3,3'-Dichlorobenzidine	ND	50	ug/L
Benzo(a)anthracene	ND	2.0	ug/L
Chrysene	ND	2.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	20	ug/L
Di-n-octyl phthalate	ND	10	ug/L
Benzo(b)fluoranthene	ND	2.0	ug/L
Benzo(k)fluoranthene	ND	2.0	ug/L
Benzo(a)pyrene	ND	2.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	2.0	ug/L
Dibenz(a,h)anthracene	ND	2.0	ug/L
Benzo(ghi)perylene	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	55 DIL	(27 - 111)
2-Fluorobiphenyl	54 DIL	(28 - 110)
Terphenyl-d14	47 DIL	(37 - 119)
Phenol-d5	56 DIL	(10 - 110)
2-Fluorophenol	39 DIL	(10 - 110)
2,4,6-Tribromophenol	68 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-7

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-003 **Work Order #...:** MAD351AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-7

GC/MS Semivolatiles

Lot-Sample #: A0K220421-003 **Work Order #:** MAD351AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		200 J	M	3.6874	ug/L
Unknown		58 J	M	4.0564	ug/L
Unknown		75 J	M	4.4522	ug/L
Unknown		120 J	M	4.5057	ug/L
Unknown		34 J	M	4.7571	ug/L
Unknown		22 J	M	5.062	ug/L
Unknown		16 J	M	5.0941	ug/L
Unknown		19 J	M	5.1476	ug/L
Unknown		200 J	M	5.3134	ug/L
Unknown		140 J	M	5.3508	ug/L
Unknown		89 J	M	5.4043	ug/L
Unknown		34 J	M	5.4685	ug/L
Unknown		43 J	M	5.5648	ug/L
Unknown		21 J	M	5.6289	ug/L
Unknown		78 J	M	5.6824	ug/L
Unknown		31 J	M	5.7145	ug/L
Unknown		32 J	M	5.7306	ug/L
Unknown		39 J	M	5.8161	ug/L
Unknown		41 J	M	5.8589	ug/L
Unknown		23 J	M	5.8857	ug/L
Unknown		40 J	M	5.9017	ug/L
Unknown		28 J	M	6.4205	ug/L
Unknown		130 J	M	7.1747	ug/L
Unknown		110 J	M	7.5651	ug/L
Unknown		55 J	M	9.0574	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-7

TOTAL Metals

Lot-Sample #...: A0K220421-003 **Matrix.....:** WG
Date Sampled...: 11/18/10 12:20 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**99.7**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351AK**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AP
		Dilution Factor: 1				
Beryllium	**0.50 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AU
		Dilution Factor: 1				
Nickel	**55.4**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AW
		Dilution Factor: 1				
Zinc	**5.6 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD351AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-7

DISSOLVED Metals

Lot-Sample #...: A0K220421-003 **Matrix.....:** WG
Date Sampled...: 11/18/10 12:20 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**75.7**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AA
		Dilution Factor: 1				
Nickel	**52.9**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD351AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD351AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD351AG
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A0K220421-004 **Work Order #...:** MAD371AW **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**3.8 J**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: A0K220421-004 **Work Order #...:** MAD371AW **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(75 - 121)
1,2-Dichloroethane-d4	110	(63 - 129)
Toluene-d8	88	(74 - 115)
4-Bromofluorobenzene	83	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-3

GC/MS Volatiles

Lot-Sample #: A0K220421-004 **Work Order #:** MAD371AW **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-004 **Work Order #...:** MAD371A1 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-004 **Work Order #...:** MAD371A1 **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	**1.7 J,B**	**2.0**	**ug/L**
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	46	(27 - 111)
2-Fluorobiphenyl	47	(28 - 110)
Terphenyl-d14	70	(37 - 119)
Phenol-d5	49	(10 - 110)
2-Fluorophenol	30	(10 - 110)
2,4,6-Tribromophenol	64	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-004 **Work Order #...:** MAD371A1 **Matrix.....:** WG

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

MW-3

GC/MS Semivolatiles

Lot-Sample #: A0K220421-004 **Work Order #:** MAD371A1 **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		4.7 J	M	4.0564	ug/L
Unknown		24 J	M	4.4575	ug/L
Unknown		7.4 J	M	5.3133	ug/L
Unknown		4.6 J	M	5.3508	ug/L
Unknown		1.6 J	M	5.431	ug/L
Unknown		2.4 J	M	6.137	ug/L
Unknown		1.1 J	M	8.4423	ug/L
Unknown		1.2 J	M	9.0306	ug/L
Unknown		1.0 J	M	10.041	ug/L
Unknown		0.95 J	M	10.1	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-3

TOTAL Metals

Lot-Sample #...: A0K220421-004 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371A4
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371A7
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CA
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CE
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CH
		Dilution Factor: 1				
Beryllium	**0.50 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD371CL**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CP
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371CW
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371C1
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371C4
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371C7
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD371AP
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-3

DISSOLVED Metals

Lot-Sample #...: A0K220421-004 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DA
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DE
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DH
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DL
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DP
		Dilution Factor: 1				
Beryllium	**0.46 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD371DT**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371DW
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371D1
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371AA
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371AE
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371AH
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD371AL
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD371AT
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

GC/MS Volatiles

Lot-Sample #...: A0K220421-005 **Work Order #...:** MAD391AH **Matrix.....:** WQ
Date Sampled...: 11/18/10 15:18 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

GC/MS Volatiles

Lot-Sample #...: A0K220421-005 **Work Order #...:** MAD391AH **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(75 - 121)
1,2-Dichloroethane-d4	109	(63 - 129)
Toluene-d8	89	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

Environmental Resources Management Inc

RINSE BLANK #2

GC/MS Volatiles

Lot-Sample #: A0K220421-005 **Work Order #:** MAD391AH **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-005 **Work Order #...:** MAD391AJ **Matrix.....:** WQ
Date Sampled...: 11/18/10 15:18 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-005 **Work Order #...:** MAD391AJ **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	58	(27 - 111)
2-Fluorobiphenyl	59	(28 - 110)
Terphenyl-d14	74	(37 - 119)
Phenol-d5	51	(10 - 110)
2-Fluorophenol	18	(10 - 110)
2,4,6-Tribromophenol	61	(22 - 120)

Environmental Resources Management Inc

RINSE BLANK #2

GC/MS Semivolatiles

Lot-Sample #: A0K220421-005 **Work Order #:** MAD391AJ **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

TOTAL Metals

Lot-Sample #...: A0K220421-005 **Matrix.....:** WQ
Date Sampled...: 11/18/10 15:18 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AK
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AP
		Dilution Factor: 1				
Beryllium	**0.49 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD391AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AU
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AV
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AX
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD391AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: RINSE BLANK #2

DISSOLVED Metals

Lot-Sample #...: A0K220421-005 **Matrix.....:** WQ
Date Sampled...: 11/18/10 15:18 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A0
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A4
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A5
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AA
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AC
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD391AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD391AG
		Dilution Factor: 1				

Environmental Resources Management Inc

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: A0K220421-006 **Work Order #...:** MAD4A1AH **Matrix.....:** WG
Date Sampled...: 11/18/10 16:11 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 4 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**230**	**40**	**ug/L**
Acetonitrile	ND	80	ug/L
Acrolein	ND	80	ug/L
Acrylonitrile	ND	80	ug/L
Allyl chloride	ND	8.0	ug/L
Benzene	ND	4.0	ug/L
Bromodichloromethane	ND	4.0	ug/L
Bromoform	ND	4.0	ug/L
Bromomethane	ND	4.0	ug/L
2-Butanone (MEK)	**8.0 J**	**40**	**ug/L**
Carbon disulfide	ND	4.0	ug/L
Carbon tetrachloride	ND	4.0	ug/L
Chlorobenzene	ND	4.0	ug/L
Chloroethane	ND	4.0	ug/L
Chloroform	ND	4.0	ug/L
Chloromethane	ND	4.0	ug/L
Chloroprene	ND	8.0	ug/L
Dibromochloromethane	ND	4.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	8.0	ug/L
1,2-Dibromoethane (EDB)	ND	4.0	ug/L
Dibromomethane	ND	4.0	ug/L
trans-1,4-Dichloro-2-butene	ND	4.0	ug/L
Dichlorodifluoromethane	ND	4.0	ug/L
1,1-Dichloroethane	ND	4.0	ug/L
1,2-Dichloroethane	ND	4.0	ug/L
1,1-Dichloroethene	ND	4.0	ug/L
trans-1,2-Dichloroethene	ND	4.0	ug/L
1,2-Dichloropropane	ND	4.0	ug/L
cis-1,3-Dichloropropene	ND	4.0	ug/L
trans-1,3-Dichloropropene	ND	4.0	ug/L
1,4-Dioxane	ND	800	ug/L
Ethylbenzene	ND	4.0	ug/L
Ethyl methacrylate	ND	4.0	ug/L
2-Hexanone	ND	40	ug/L
Iodomethane	ND	4.0	ug/L
Isobutyl alcohol	ND	200	ug/L
Methacrylonitrile	ND	8.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-6

GC/MS Volatiles

Lot-Sample #...: A0K220421-006 **Work Order #...:** MAD4A1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	4.0	ug/L
Methyl methacrylate	ND	8.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	40	ug/L
Propionitrile	ND	16	ug/L
Styrene	ND	4.0	ug/L
1,1,1,2-Tetrachloroethane	ND	4.0	ug/L
1,1,2,2-Tetrachloroethane	ND	4.0	ug/L
Tetrachloroethene	ND	4.0	ug/L
Toluene	ND	4.0	ug/L
1,1,1-Trichloroethane	ND	4.0	ug/L
1,1,2-Trichloroethane	ND	4.0	ug/L
Trichloroethene	ND	4.0	ug/L
Trichlorofluoromethane	ND	4.0	ug/L
1,2,3-Trichloropropane	ND	4.0	ug/L
Vinyl acetate	ND	8.0	ug/L
Vinyl chloride	ND	4.0	ug/L
Xylenes (total)	ND	8.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
1,2-Dichloroethane-d4	112	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-6

GC/MS Volatiles

Lot-Sample #: A0K220421-006 **Work Order #:** MAD4A1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		13 J	M	1.6543	ug/L
Unknown		6.8 J	M	11.33	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-6

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-006 **Work Order #...:** MAD4A1AJ **Matrix.....:** WG
Date Sampled...: 11/18/10 16:11 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 4 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	4.0	ug/L
bis(2-Chloroethyl)-ether	ND	4.0	ug/L
2-Chlorophenol	ND	4.0	ug/L
1,3-Dichlorobenzene	ND	4.0	ug/L
1,4-Dichlorobenzene	ND	4.0	ug/L
1,2-Dichlorobenzene	ND	4.0	ug/L
2-Methylphenol	ND	4.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	4.0	ug/L
4-Methylphenol	ND	4.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	4.0	ug/L
Hexachloroethane	ND	4.0	ug/L
Nitrobenzene	ND	4.0	ug/L
Isophorone	ND	4.0	ug/L
2-Nitrophenol	ND	8.0	ug/L
2,4-Dimethylphenol	ND	8.0	ug/L
bis(2-Chloroethoxy) methane	ND	4.0	ug/L
2,4-Dichlorophenol	ND	8.0	ug/L
1,2,4-Trichloro-benzene	ND	4.0	ug/L
Naphthalene	ND	0.80	ug/L
4-Chloroaniline	ND	8.0	ug/L
Hexachlorobutadiene	ND	4.0	ug/L
4-Chloro-3-methylphenol	ND	8.0	ug/L
2-Methylnaphthalene	ND	0.80	ug/L
Hexachlorocyclopenta-diene	ND	40	ug/L
2,4,6-Trichloro-phenol	ND	20	ug/L
2,4,5-Trichloro-phenol	ND	20	ug/L
2-Chloronaphthalene	ND	4.0	ug/L
2-Nitroaniline	ND	8.0	ug/L
Dimethyl phthalate	ND	4.0	ug/L
Acenaphthylene	ND	0.80	ug/L
2,6-Dinitrotoluene	ND	20	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-6

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-006 **Work Order #...:** MAD4A1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	8.0	ug/L
Acenaphthene	ND	0.80	ug/L
2,4-Dinitrophenol	ND	20	ug/L
4-Nitrophenol	ND	20	ug/L
Dibenzofuran	ND	4.0	ug/L
2,4-Dinitrotoluene	ND	20	ug/L
Diethyl phthalate	ND	4.0	ug/L
4-Chlorophenyl phenyl ether	ND	8.0	ug/L
Fluorene	ND	0.80	ug/L
4-Nitroaniline	ND	8.0	ug/L
4,6-Dinitro-2-methylphenol	ND	20	ug/L
N-Nitrosodiphenylamine	ND	4.0	ug/L
4-Bromophenyl phenyl ether	ND	8.0	ug/L
Hexachlorobenzene	ND	0.80	ug/L
Pentachlorophenol	ND	20	ug/L
Phenanthrene	ND	0.80	ug/L
Anthracene	ND	0.80	ug/L
Carbazole	ND	4.0	ug/L
Di-n-butyl phthalate	ND	4.0	ug/L
Fluoranthene	ND	0.80	ug/L
Pyrene	ND	0.80	ug/L
Butyl benzyl phthalate	ND	4.0	ug/L
3,3'-Dichlorobenzidine	ND	20	ug/L
Benzo(a)anthracene	ND	0.80	ug/L
Chrysene	ND	0.80	ug/L
bis(2-Ethylhexyl) phthalate	ND	8.0	ug/L
Di-n-octyl phthalate	ND	4.0	ug/L
Benzo(b)fluoranthene	ND	0.80	ug/L
Benzo(k)fluoranthene	ND	0.80	ug/L
Benzo(a)pyrene	ND	0.80	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.80	ug/L
Dibenz(a,h)anthracene	ND	0.80	ug/L
Benzo(ghi)perylene	ND	0.80	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	44 DIL	(27 - 111)
2-Fluorobiphenyl	48 DIL	(28 - 110)
Terphenyl-d14	52 DIL	(37 - 119)
Phenol-d5	50 DIL	(10 - 110)
2-Fluorophenol	36 DIL	(10 - 110)
2,4,6-Tribromophenol	66 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-6

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-006 **Work Order #...:** MAD4A1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-6

GC/MS Semivolatiles

Lot-Sample #: A0K220421-006 **Work Order #:** MAD4A1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		29 J	M	4.4094	ug/L
Unknown		26 J	M	4.5912	ug/L
Unknown		49 J	M	5.3347	ug/L
Unknown		57 J	M	5.3507	ug/L
Unknown		30 J	M	5.6182	ug/L
Unknown		34 J	M	5.677	ug/L
Unknown		22 J	M	5.7091	ug/L
Unknown		38 J	M	5.7412	ug/L
Unknown		24 J	M	5.8161	ug/L
Unknown		53 J	M	6.137	ug/L
Unknown		25 J	M	6.1798	ug/L
Unknown		39 J	M	6.4526	ug/L
Unknown		28 J	M	6.5221	ug/L
Unknown		40 J	M	6.5435	ug/L
Unknown		22 J	M	6.5595	ug/L
Unknown		55 J	M	6.613	ug/L
Unknown		49 J	M	6.7681	ug/L
Unknown		21 J	M	6.827	ug/L
Unknown		25 J	M	7.3083	ug/L
Unknown		410 J	M	7.5865	ug/L
Unknown		25 J	M	8.1427	ug/L
Unknown		29 J	M	8.2978	ug/L
Unknown		57 J	M	8.3139	ug/L
Unknown		24 J	M	8.4957	ug/L
Unknown		360 J	M	9.0573	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-6

TOTAL Metals

Lot-Sample #...: A0K220421-006 **Matrix.....:** WG
Date Sampled...: 11/18/10 16:11 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**31.3**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1AK**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AN
		Dilution Factor: 1				
Antimony	**4.8 B**	**60.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1AP**
		Dilution Factor: 1				
Beryllium	**0.57 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AU
		Dilution Factor: 1				
Nickel	**11.4 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AX
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4A1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-6

DISSOLVED Metals

Lot-Sample #...: A0K220421-006 **Matrix.....:** WG
Date Sampled...: 11/18/10 16:11 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**30.7**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A4
		Dilution Factor: 1				
Beryllium	**0.55 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1A5**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AA
		Dilution Factor: 1				
Nickel	**9.6 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4A1AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4A1AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4A1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A0K220421-007 **Work Order #...:** MAD4D1AH **Matrix.....:** WG
Date Sampled...: 11/18/10 17:00 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**3.3 J**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #...: A0K220421-007 **Work Order #...:** MAD4D1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(75 - 121)
1,2-Dichloroethane-d4	110	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-4

GC/MS Volatiles

Lot-Sample #: A0K220421-007 **Work Order #:** MAD4D1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

Environmental Resources Management Inc

Client Sample ID: MW-4

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-007 **Work Order #...:** MAD4D1AJ **Matrix.....:** WG
Date Sampled...: 11/18/10 17:00 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 4 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	4.0	ug/L
bis(2-Chloroethyl)-ether	ND	4.0	ug/L
2-Chlorophenol	ND	4.0	ug/L
1,3-Dichlorobenzene	ND	4.0	ug/L
1,4-Dichlorobenzene	ND	4.0	ug/L
1,2-Dichlorobenzene	ND	4.0	ug/L
2-Methylphenol	ND	4.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	4.0	ug/L
4-Methylphenol	ND	4.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	4.0	ug/L
Hexachloroethane	ND	4.0	ug/L
Nitrobenzene	ND	4.0	ug/L
Isophorone	ND	4.0	ug/L
2-Nitrophenol	ND	8.0	ug/L
2,4-Dimethylphenol	ND	8.0	ug/L
bis(2-Chloroethoxy) methane	ND	4.0	ug/L
2,4-Dichlorophenol	ND	8.0	ug/L
1,2,4-Trichloro-benzene	ND	4.0	ug/L
Naphthalene	ND	0.80	ug/L
4-Chloroaniline	ND	8.0	ug/L
Hexachlorobutadiene	ND	4.0	ug/L
4-Chloro-3-methylphenol	ND	8.0	ug/L
2-Methylnaphthalene	ND	0.80	ug/L
Hexachlorocyclopenta-diene	ND	40	ug/L
2,4,6-Trichloro-phenol	ND	20	ug/L
2,4,5-Trichloro-phenol	ND	20	ug/L
2-Chloronaphthalene	ND	4.0	ug/L
2-Nitroaniline	ND	8.0	ug/L
Dimethyl phthalate	ND	4.0	ug/L
Acenaphthylene	ND	0.80	ug/L
2,6-Dinitrotoluene	ND	20	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-4

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-007 **Work Order #...:** MAD4D1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	8.0	ug/L
Acenaphthene	ND	0.80	ug/L
2,4-Dinitrophenol	ND	20	ug/L
4-Nitrophenol	ND	20	ug/L
Dibenzofuran	ND	4.0	ug/L
2,4-Dinitrotoluene	ND	20	ug/L
Diethyl phthalate	ND	4.0	ug/L
4-Chlorophenyl phenyl ether	ND	8.0	ug/L
Fluorene	ND	0.80	ug/L
4-Nitroaniline	ND	8.0	ug/L
4,6-Dinitro-2-methylphenol	ND	20	ug/L
N-Nitrosodiphenylamine	ND	4.0	ug/L
4-Bromophenyl phenyl ether	ND	8.0	ug/L
Hexachlorobenzene	ND	0.80	ug/L
Pentachlorophenol	ND	20	ug/L
Phenanthrene	ND	0.80	ug/L
Anthracene	ND	0.80	ug/L
Carbazole	ND	4.0	ug/L
Di-n-butyl phthalate	ND	4.0	ug/L
Fluoranthene	ND	0.80	ug/L
Pyrene	ND	0.80	ug/L
Butyl benzyl phthalate	ND	4.0	ug/L
3,3'-Dichlorobenzidine	ND	20	ug/L
Benzo(a)anthracene	ND	0.80	ug/L
Chrysene	ND	0.80	ug/L
bis(2-Ethylhexyl) phthalate	ND	8.0	ug/L
Di-n-octyl phthalate	ND	4.0	ug/L
Benzo(b)fluoranthene	ND	0.80	ug/L
Benzo(k)fluoranthene	ND	0.80	ug/L
Benzo(a)pyrene	ND	0.80	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.80	ug/L
Dibenz(a,h)anthracene	ND	0.80	ug/L
Benzo(ghi)perylene	ND	0.80	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	50 DIL	(27 - 111)
2-Fluorobiphenyl	51 DIL	(28 - 110)
Terphenyl-d14	59 DIL	(37 - 119)
Phenol-d5	50 DIL	(10 - 110)
2-Fluorophenol	33 DIL	(10 - 110)
2,4,6-Tribromophenol	59 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-4

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-007 **Work Order #...:** MAD4D1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-4

GC/MS Semivolatiles

Lot-Sample #: A0K220421-007 **Work Order #:** MAD4D1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		35 J	M	4.3666	ug/L
Unknown		170 J	M	4.4148	ug/L
Unknown		11 J	M	4.5057	ug/L
Unknown		42 J	M	4.5806	ug/L
Unknown		20 J	M	4.9603	ug/L
Unknown		9.9 J	M	5.0994	ug/L
Unknown		14 J	M	5.324	ug/L
Unknown		14 J	M	5.3508	ug/L
Unknown		10 J	M	5.4043	ug/L
Unknown		56 J	M	5.6182	ug/L
Unknown		41 J	M	5.7145	ug/L
Unknown		10 J	M	5.9498	ug/L
Unknown		23 J	M	6.137	ug/L
Unknown		8.4 J	M	6.4526	ug/L
Unknown		15 J	M	7.0623	ug/L
Unknown		23 J	M	7.1747	ug/L
Unknown		41 J	M	7.303	ug/L
Unknown		70 J	M	7.5651	ug/L
Unknown		47 J	M	8.1321	ug/L
Unknown		93 J	M	8.3032	ug/L
Unknown		32 J	M	8.4851	ug/L
Unknown		14 J	M	8.5065	ug/L
Unknown		53 J	M	8.56	ug/L
Unknown		800 J	M	9.0574	ug/L
Unknown		27 J	M	9.2339	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-4

TOTAL Metals

Lot-Sample #...: A0K220421-007 **Matrix.....:** WG
Date Sampled...: 11/18/10 17:00 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AK
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AN
		Dilution Factor: 1				
Antimony	**3.3 B**	**60.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1AP**
		Dilution Factor: 1				
Beryllium	**0.60 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AU
		Dilution Factor: 1				
Nickel	**10.3 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AW
		Dilution Factor: 1				
Zinc	**17.9 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4D1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-4

DISSOLVED Metals

Lot-Sample #...: A0K220421-007 **Matrix.....:** WG
Date Sampled...: 11/18/10 17:00 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A0
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A4
		Dilution Factor: 1				
Beryllium	**0.56 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1A5**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AA
		Dilution Factor: 1				
Nickel	**8.2 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4D1AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4D1AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4D1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A0K220421-008 **Work Order #...:** MAD4E1AH **Matrix.....:** WG
Date Sampled...: 11/19/10 09:25 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**45**	**10**	**ug/L**
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	**3.0 J**	**10**	**ug/L**
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	**11 J**	**50**	**ug/L**
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-8

GC/MS Volatiles

Lot-Sample #...: A0K220421-008 **Work Order #...:** MAD4E1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	**3.1 J**	**10**	**ug/L**
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	**0.23 J**	**1.0**	**ug/L**
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(75 - 121)
1,2-Dichloroethane-d4	113	(63 - 129)
Toluene-d8	89	(74 - 115)
4-Bromofluorobenzene	84	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-8

GC/MS Volatiles

Lot-Sample #: A0K220421-008 **Work Order #:** MAD4E1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	4.6 NJ	M	1.6424	ug/L
Unknown		1.6 J	M	13.358	ug/L
Unknown		8.2 J	M	13.429	ug/L
tert-Butyl Alcohol		120	Q	3.943	ug/L

NOTE(S):

Q: Result was quantitated against the response factor of a calibration standard.

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-8

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-008 **Work Order #...:** MAD4E1AJ **Matrix.....:** WG
Date Sampled...: 11/19/10 09:25 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 20 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	20	ug/L
bis(2-Chloroethyl)-ether	ND	20	ug/L
2-Chlorophenol	ND	20	ug/L
1,3-Dichlorobenzene	ND	20	ug/L
1,4-Dichlorobenzene	ND	20	ug/L
1,2-Dichlorobenzene	ND	20	ug/L
2-Methylphenol	ND	20	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	20	ug/L
4-Methylphenol	ND	20	ug/L
N-Nitrosodi-n-propyl-amine	ND	20	ug/L
Hexachloroethane	ND	20	ug/L
Nitrobenzene	ND	20	ug/L
Isophorone	ND	20	ug/L
2-Nitrophenol	ND	40	ug/L
2,4-Dimethylphenol	ND	40	ug/L
bis(2-Chloroethoxy) methane	ND	20	ug/L
2,4-Dichlorophenol	ND	40	ug/L
1,2,4-Trichloro-benzene	ND	20	ug/L
Naphthalene	ND	4.0	ug/L
4-Chloroaniline	ND	40	ug/L
Hexachlorobutadiene	ND	20	ug/L
4-Chloro-3-methylphenol	ND	40	ug/L
2-Methylnaphthalene	ND	4.0	ug/L
Hexachlorocyclopenta-diene	ND	200	ug/L
2,4,6-Trichloro-phenol	ND	100	ug/L
2,4,5-Trichloro-phenol	ND	100	ug/L
2-Chloronaphthalene	ND	20	ug/L
2-Nitroaniline	ND	40	ug/L
Dimethyl phthalate	ND	20	ug/L
Acenaphthylene	ND	4.0	ug/L
2,6-Dinitrotoluene	ND	100	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-8

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-008 **Work Order #...:** MAD4E1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	40	ug/L
Acenaphthene	ND	4.0	ug/L
2,4-Dinitrophenol	ND	100	ug/L
4-Nitrophenol	ND	100	ug/L
Dibenzofuran	ND	20	ug/L
2,4-Dinitrotoluene	ND	100	ug/L
Diethyl phthalate	ND	20	ug/L
4-Chlorophenyl phenyl ether	ND	40	ug/L
Fluorene	ND	4.0	ug/L
4-Nitroaniline	ND	40	ug/L
4,6-Dinitro-2-methylphenol	ND	100	ug/L
N-Nitrosodiphenylamine	ND	20	ug/L
4-Bromophenyl phenyl ether	ND	40	ug/L
Hexachlorobenzene	ND	4.0	ug/L
Pentachlorophenol	ND	100	ug/L
Phenanthrene	ND	4.0	ug/L
Anthracene	ND	4.0	ug/L
Carbazole	ND	20	ug/L
Di-n-butyl phthalate	ND	20	ug/L
Fluoranthene	ND	4.0	ug/L
Pyrene	ND	4.0	ug/L
Butyl benzyl phthalate	ND	20	ug/L
3,3'-Dichlorobenzidine	ND	100	ug/L
Benzo(a)anthracene	ND	4.0	ug/L
Chrysene	ND	4.0	ug/L
bis(2-Ethylhexyl) phthalate	ND	40	ug/L
Di-n-octyl phthalate	ND	20	ug/L
Benzo(b)fluoranthene	ND	4.0	ug/L
Benzo(k)fluoranthene	ND	4.0	ug/L
Benzo(a)pyrene	ND	4.0	ug/L
Indeno(1,2,3-cd)pyrene	ND	4.0	ug/L
Dibenz(a,h)anthracene	ND	4.0	ug/L
Benzo(ghi)perylene	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	42 DIL	(27 - 111)
2-Fluorobiphenyl	47 DIL	(28 - 110)
Terphenyl-d14	45 DIL	(37 - 119)
Phenol-d5	49 DIL	(10 - 110)
2-Fluorophenol	32 DIL	(10 - 110)
2,4,6-Tribromophenol	56 DIL	(22 - 120)

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-8

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-008 **Work Order #...:** MAD4E1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Environmental Resources Management Inc

MW-8

GC/MS Semivolatiles

Lot-Sample #: A0K220421-008 **Work Order #:** MAD4E1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		140 J	M	3.6819	ug/L
Unknown		82 J	M	3.8423	ug/L
Unknown		120 J	M	4.3665	ug/L
Unknown		200 J	M	4.5858	ug/L
Unknown		360 J	M	5.3239	ug/L
Unknown		290 J	M	5.356	ug/L
Unknown		250 J	M	5.6234	ug/L
Unknown		66 J	M	5.6876	ug/L
Unknown		100 J	M	5.7304	ug/L
Unknown		120 J	M	6.1369	ug/L
Unknown		48 J	M	6.4525	ug/L
Unknown		70 J	M	6.6129	ug/L
Unknown		270 J	M	7.3083	ug/L
Unknown		330 J	M	7.5703	ug/L
Unknown		99 J	M	7.8003	ug/L
Unknown		150 J	M	8.1426	ug/L
Unknown		60 J	M	8.1747	ug/L
Unknown		300 J	M	8.3138	ug/L
Unknown		68 J	M	8.4957	ug/L
Unknown		650 J	M	8.5224	ug/L
Unknown		150 J	M	8.5759	ug/L
Unknown		260 J	M	8.747	ug/L
Unknown		260 J	M	8.8808	ug/L
Unknown		2200 J	M	9.0733	ug/L
Unknown		69 J	M	9.2498	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-8

TOTAL Metals

Lot-Sample #...: A0K220421-008 **Matrix.....:** WG
Date Sampled...: 11/19/10 09:25 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**10.3**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AK**
		Dilution Factor: 1				
Lead	**2.9 B**	**3.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AL**
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AP
		Dilution Factor: 1				
Beryllium	**0.89 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AR
		Dilution Factor: 1				
Chromium	**5.2 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AT**
		Dilution Factor: 1				
Copper	**15.5 B**	**25.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AU**
		Dilution Factor: 1				
Nickel	**25.9 B**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AW
		Dilution Factor: 1				
Zinc	**34.5 J**	**20.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4E1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-8

DISSOLVED Metals

Lot-Sample #...: A0K220421-008 **Matrix.....:** WG
Date Sampled...: 11/19/10 09:25 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**4.0 B**	**10.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1A0**
Lead	ND	3.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A1
Selenium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A2
Thallium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A3
Antimony	ND	60.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A4
Beryllium	**0.62 B**	**5.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1A5**
Cadmium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A6
Chromium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1A7
Copper	ND	25.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AA
Nickel	**15.8 B**	**40.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AC**
Silver	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAD4E1AD
Zinc	**7.6 B,J**	**20.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4E1AE**
Mercury	ND	0.20 Dilution Factor: 1	ug/L	SW846 7470A	11/23-11/24/10	MAD4E1AG

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A0K220421-009 **Work Order #...:** MAD4F1AH **Matrix.....:** WG
Date Sampled...: 11/19/10 10:40 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: A0K220421-009 **Work Order #...:** MAD4F1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(75 - 121)
1,2-Dichloroethane-d4	109	(63 - 129)
Toluene-d8	90	(74 - 115)
4-Bromofluorobenzene	81	(66 - 117)

Environmental Resources Management Inc

MW-2

GC/MS Volatiles

Lot-Sample #: A0K220421-009 **Work Order #:** MAD4F1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Silane, fluorotrimethyl-	420-56-4	1.9 NJ	M	1.8322	ug/L
Silanol, trimethyl-	1066-40-6	1.9 NJ	M	5.544	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-2

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-009 **Work Order #...:** MAD4F1AJ **Matrix.....:** WG
Date Sampled...: 11/19/10 10:40 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	1.0	ug/L
bis(2-Chloroethyl)-ether	ND	1.0	ug/L
2-Chlorophenol	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
2-Methylphenol	ND	1.0	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L
4-Methylphenol	ND	1.0	ug/L
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L
Hexachloroethane	ND	1.0	ug/L
Nitrobenzene	ND	1.0	ug/L
Isophorone	ND	1.0	ug/L
2-Nitrophenol	ND	2.0	ug/L
2,4-Dimethylphenol	ND	2.0	ug/L
bis(2-Chloroethoxy) methane	ND	1.0	ug/L
2,4-Dichlorophenol	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
Naphthalene	ND	0.20	ug/L
4-Chloroaniline	ND	2.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
4-Chloro-3-methylphenol	ND	2.0	ug/L
2-Methylnaphthalene	ND	0.20	ug/L
Hexachlorocyclopenta-diene	ND	10	ug/L
2,4,6-Trichloro-phenol	ND	5.0	ug/L
2,4,5-Trichloro-phenol	ND	5.0	ug/L
2-Chloronaphthalene	ND	1.0	ug/L
2-Nitroaniline	ND	2.0	ug/L
Dimethyl phthalate	ND	1.0	ug/L
Acenaphthylene	ND	0.20	ug/L
2,6-Dinitrotoluene	ND	5.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-2

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-009 **Work Order #...:** MAD4F1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	2.0	ug/L
Acenaphthene	ND	0.20	ug/L
2,4-Dinitrophenol	ND	5.0	ug/L
4-Nitrophenol	ND	5.0	ug/L
Dibenzofuran	ND	1.0	ug/L
2,4-Dinitrotoluene	ND	5.0	ug/L
Diethyl phthalate	ND	1.0	ug/L
4-Chlorophenyl phenyl ether	ND	2.0	ug/L
Fluorene	ND	0.20	ug/L
4-Nitroaniline	ND	2.0	ug/L
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L
N-Nitrosodiphenylamine	ND	1.0	ug/L
4-Bromophenyl phenyl ether	ND	2.0	ug/L
Hexachlorobenzene	ND	0.20	ug/L
Pentachlorophenol	ND	5.0	ug/L
Phenanthrene	ND	0.20	ug/L
Anthracene	ND	0.20	ug/L
Carbazole	ND	1.0	ug/L
Di-n-butyl phthalate	ND	1.0	ug/L
Fluoranthene	ND	0.20	ug/L
Pyrene	ND	0.20	ug/L
Butyl benzyl phthalate	ND	1.0	ug/L
3,3'-Dichlorobenzidine	ND	5.0	ug/L
Benzo(a)anthracene	ND	0.20	ug/L
Chrysene	ND	0.20	ug/L
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L
Di-n-octyl phthalate	ND	1.0	ug/L
Benzo(b)fluoranthene	ND	0.20	ug/L
Benzo(k)fluoranthene	ND	0.20	ug/L
Benzo(a)pyrene	ND	0.20	ug/L
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L
Dibenz(a,h)anthracene	ND	0.20	ug/L
Benzo(ghi)perylene	ND	0.20	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	44	(27 - 111)
2-Fluorobiphenyl	45	(28 - 110)
Terphenyl-d14	72	(37 - 119)
Phenol-d5	44	(10 - 110)
2-Fluorophenol	24	(10 - 110)
2,4,6-Tribromophenol	57	(22 - 120)

Environmental Resources Management Inc

MW-2

GC/MS Semivolatiles

Lot-Sample #: A0K220421-009 **Work Order #:** MAD4F1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		0.92 J	M	3.0028	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-2

TOTAL Metals

Lot-Sample #...: A0K220421-009 **Matrix.....:** WG
Date Sampled...: 11/19/10 10:40 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**5.9 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4F1AK**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AL
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AM
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AN
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AP
		Dilution Factor: 1				
Beryllium	**0.74 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4F1AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AR
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AT
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AU
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AV
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AX
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4F1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-2

DISSOLVED Metals

Lot-Sample #...: A0K220421-009 **Matrix.....:** WG
Date Sampled...: 11/19/10 10:40 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**5.5 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4F1A0**
		Dilution Factor: 1				
Lead	ND	3.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A1
		Dilution Factor: 1				
Selenium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A2
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A3
		Dilution Factor: 1				
Antimony	ND	60.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A4
		Dilution Factor: 1				
Beryllium	**0.59 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4F1A5**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A6
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1A7
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AA
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AC
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AD
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4F1AE
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4F1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

Environmental Resources Management Inc

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A0K220421-010 **Work Order #...:** MAD4G1AH **Matrix.....:** WG
Date Sampled...: 11/19/10 11:30 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	**130**	**50**	**ug/L**
Acetonitrile	ND	100	ug/L
Acrolein	ND	100	ug/L
Acrylonitrile	ND	100	ug/L
Allyl chloride	ND	10	ug/L
Benzene	**13**	**5.0**	**ug/L**
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
2-Butanone (MEK)	**42 J**	**50**	**ug/L**
Carbon disulfide	**1.7 J**	**5.0**	**ug/L**
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
Chloroprene	ND	10	ug/L
Dibromochloromethane	ND	5.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	10	ug/L
1,2-Dibromoethane (EDB)	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
trans-1,4-Dichloro-2-butene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
trans-1,2-Dichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
1,4-Dioxane	ND	1000	ug/L
Ethylbenzene	**2.4 J**	**5.0**	**ug/L**
Ethyl methacrylate	ND	5.0	ug/L
2-Hexanone	ND	50	ug/L
Iodomethane	ND	5.0	ug/L
Isobutyl alcohol	ND	250	ug/L
Methacrylonitrile	ND	10	ug/L

(Continued on next page)

Environmental Resources Management Inc

Client Sample ID: MW-5

GC/MS Volatiles

Lot-Sample #...: A0K220421-010 **Work Order #...:** MAD4G1AH **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	ND	5.0	ug/L
Methyl methacrylate	ND	10	ug/L
4-Methyl-2-pentanone (MIBK)	**340**	**50**	**ug/L**
Propionitrile	ND	20	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Toluene	**7.0**	**5.0**	**ug/L**
1,1,1-Trichloroethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Trichloroethene	**2.0 J**	**5.0**	**ug/L**
Trichlorofluoromethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
Vinyl acetate	ND	10	ug/L
Vinyl chloride	ND	5.0	ug/L
Xylenes (total)	**5.2 J**	**10**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	112	(63 - 129)
Toluene-d8	91	(74 - 115)
4-Bromofluorobenzene	89	(66 - 117)

NOTE(S):

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

MW-5

GC/MS Volatiles

Lot-Sample #: A0K220421-010 **Work Order #:** MAD4G1AH **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
1-Propene, 2-methyl-	115-11-7	93 NJ	M	1.6543	ug/L
Unknown		45 J	M	8.8168	ug/L
2-Hexanol, 2-methyl-	625-23-0	66 NJ	M	9.3386	ug/L
1-Pentene, 2,4,4-trimethyl-	107-39-1	18 NJ	M	9.6943	ug/L
Unknown		23 J	M	13.228	ug/L
Unknown		33 J	M	13.299	ug/L
Unknown		110 J	M	13.358	ug/L
Cyclohexene, 1-methyl-4-(1-met	586-62-9	12 NJ	M	13.939	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-5

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-010 **Work Order #...:** MAD4G1AJ **Matrix.....:** WG
Date Sampled...: 11/19/10 11:30 **Date Received..:** 11/20/10
Prep Date.....: 11/25/10 **Analysis Date..:** 12/06/10
Prep Batch #...: 0328322
Dilution Factor: 50 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Phenol	ND	50	ug/L
bis(2-Chloroethyl)-ether	ND	50	ug/L
2-Chlorophenol	ND	50	ug/L
1,3-Dichlorobenzene	ND	50	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
1,2-Dichlorobenzene	ND	50	ug/L
2-Methylphenol	ND	50	ug/L
2,2'-oxybis(1-Chloro-propane)	ND	50	ug/L
4-Methylphenol	ND	50	ug/L
N-Nitrosodi-n-propyl-amine	ND	50	ug/L
Hexachloroethane	ND	50	ug/L
Nitrobenzene	ND	50	ug/L
Isophorone	ND	50	ug/L
2-Nitrophenol	ND	100	ug/L
2,4-Dimethylphenol	ND	100	ug/L
bis(2-Chloroethoxy) methane	ND	50	ug/L
2,4-Dichlorophenol	ND	100	ug/L
1,2,4-Trichloro-benzene	ND	50	ug/L
Naphthalene	ND	10	ug/L
4-Chloroaniline	ND	100	ug/L
Hexachlorobutadiene	ND	50	ug/L
4-Chloro-3-methylphenol	ND	100	ug/L
2-Methylnaphthalene	ND	10	ug/L
Hexachlorocyclopenta-diene	ND	500	ug/L
2,4,6-Trichloro-phenol	ND	250	ug/L
2,4,5-Trichloro-phenol	ND	250	ug/L
2-Chloronaphthalene	ND	50	ug/L
2-Nitroaniline	ND	100	ug/L
Dimethyl phthalate	ND	50	ug/L
Acenaphthylene	ND	10	ug/L
2,6-Dinitrotoluene	ND	250	ug/L

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Environmental Resources Management Inc

Client Sample ID: MW-5

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-010 **Work Order #...:** MAD4G1AJ **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
3-Nitroaniline	ND	100	ug/L
Acenaphthene	ND	10	ug/L
2,4-Dinitrophenol	ND	250	ug/L
4-Nitrophenol	ND	250	ug/L
Dibenzofuran	ND	50	ug/L
2,4-Dinitrotoluene	ND	250	ug/L
Diethyl phthalate	ND	50	ug/L
4-Chlorophenyl phenyl ether	ND	100	ug/L
Fluorene	ND	10	ug/L
4-Nitroaniline	ND	100	ug/L
4,6-Dinitro-2-methylphenol	ND	250	ug/L
N-Nitrosodiphenylamine	ND	50	ug/L
4-Bromophenyl phenyl ether	ND	100	ug/L
Hexachlorobenzene	ND	10	ug/L
Pentachlorophenol	ND	250	ug/L
Phenanthrene	ND	10	ug/L
Anthracene	ND	10	ug/L
Carbazole	ND	50	ug/L
Di-n-butyl phthalate	ND	50	ug/L
Fluoranthene	ND	10	ug/L
Pyrene	ND	10	ug/L
Butyl benzyl phthalate	ND	50	ug/L
3,3'-Dichlorobenzidine	ND	250	ug/L
Benzo(a)anthracene	ND	10	ug/L
Chrysene	ND	10	ug/L
bis(2-Ethylhexyl) phthalate	ND	100	ug/L
Di-n-octyl phthalate	ND	50	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	0.0 DIL,*	(27 - 111)
2-Fluorobiphenyl	0.0 DIL,*	(28 - 110)
Terphenyl-d14	0.0 DIL,*	(37 - 119)
Phenol-d5	0.0 DIL,*	(10 - 110)
2-Fluorophenol	0.0 DIL,*	(10 - 110)
2,4,6-Tribromophenol	0.0 DIL,*	(22 - 120)

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Environmental Resources Management Inc

Client Sample ID: MW-5

GC/MS Semivolatiles

Lot-Sample #...: A0K220421-010 **Work Order #...:** MAD4G1AJ **Matrix.....:** WG

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Environmental Resources Management Inc

MW-5

GC/MS Semivolatiles

Lot-Sample #: A0K220421-010 **Work Order #:** MAD4G1AJ **Matrix:** WG

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		370 J	M	2.102	ug/L
Unknown		950 J	M	2.3587	ug/L
Unknown		550 J	M	2.4175	ug/L
Unknown		90 J	M	2.5352	ug/L
Unknown		110 J	M	2.8561	ug/L
Unknown		170 J	M	3.7066	ug/L
Unknown		61 J	M	3.7707	ug/L
Unknown		160 J	M	3.9633	ug/L
Unknown		73 J	M	4.3163	ug/L
Unknown		430 J	M	4.4821	ug/L
Unknown		520 J	M	4.7442	ug/L
Unknown		50 J	M	5.0865	ug/L
Unknown		44 J	M	5.263	ug/L
Unknown		110 J	M	5.493	ug/L
Unknown		160 J	M	5.6	ug/L
Unknown		740 J	M	5.8032	ug/L
Unknown		280 J	M	5.9423	ug/L
Unknown		64 J	M	6.0279	ug/L
Unknown		640 J	M	7.3276	ug/L
Unknown		110 J	M	8.3331	ug/L
Unknown		52 J	M	9.2317	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

Environmental Resources Management Inc

Client Sample ID: MW-5

TOTAL Metals

Lot-Sample #...: A0K220421-010 **Matrix.....:** WG
Date Sampled...: 11/19/10 11:30 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**12.6**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AK**
		Dilution Factor: 1				
Lead	**10.2**	**3.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AL**
		Dilution Factor: 1				
Selenium	**7.8**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AM**
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1AN
		Dilution Factor: 1				
Antimony	**103**	**60.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AP**
		Dilution Factor: 1				
Beryllium	**0.77 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AQ**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1AR
		Dilution Factor: 1				
Chromium	**4.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AT**
		Dilution Factor: 1				
Copper	**19.1 B**	**25.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AU**
		Dilution Factor: 1				
Nickel	**147**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AV**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1AW
		Dilution Factor: 1				
Zinc	**23.9 J**	**20.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AX**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4G1AF
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: MW-5

DISSOLVED Metals

Lot-Sample #...: A0K220421-010 **Matrix.....:** WG
Date Sampled...: 11/19/10 11:30 **Date Received..:** 11/20/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0327012						
Arsenic	**11.0**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A0**
		Dilution Factor: 1				
Lead	**2.1 B**	**3.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A1**
		Dilution Factor: 1				
Selenium	**9.4**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A2**
		Dilution Factor: 1				
Thallium	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1A3
		Dilution Factor: 1				
Antimony	**104**	**60.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A4**
		Dilution Factor: 1				
Beryllium	**0.70 B**	**5.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A5**
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1A6
		Dilution Factor: 1				
Chromium	**2.4 B**	**10.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1A7**
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1AA
		Dilution Factor: 1				
Nickel	**140**	**40.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AC**
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	11/23-11/29/10	MAD4G1AD
		Dilution Factor: 1				
Zinc	**5.7 B,J**	**20.0**	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAD4G1AE**
		Dilution Factor: 1				
Mercury	ND	0.20	ug/L	SW846 7470A	11/23-11/24/10	MAD4G1AG
		Dilution Factor: 1				

NOTE(S):

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Environmental Resources Management Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0K220421-011 **Work Order #...:** MAD4R1AA **Matrix.....:** WQ
Date Sampled...: 11/19/10 12:30 **Date Received..:** 11/20/10
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340157
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acetonitrile	ND	20	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Allyl chloride	ND	2.0	ug/L
Benzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone (MEK)	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Chloroprene	ND	2.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,4-Dioxane	ND	200	ug/L
Ethylbenzene	ND	1.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isobutyl alcohol	ND	50	ug/L
Methacrylonitrile	ND	2.0	ug/L

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Environmental Resources Management Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0K220421-011 **Work Order #...:** MAD4R1AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methylene chloride	**1.8**	**1.0**	**ug/L**
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Propionitrile	ND	4.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	97	(74 - 115)
4-Bromofluorobenzene	86	(66 - 117)

Environmental Resources Management Inc

TRIP BLANK

GC/MS Volatiles

Lot-Sample #: A0K220421-011 **Work Order #:** MAD4R1AA **Matrix:** WQ

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MATLP1AA **Matrix.....:** WATER
MB Lot-Sample #: A0L030000-199

Prep Date.....: 12/02/10
Analysis Date..: 12/02/10 **Prep Batch #...:** 0337199
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	2.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MATLP1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(75 - 121)
1,2-Dichloroethane-d4	109	(63 - 129)
Toluene-d8	92	(74 - 115)
4-Bromofluorobenzene	86	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0L030000-199 B **Work Order #:** MATLP1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MAWWK1AA **Matrix.....:** WATER
MB Lot-Sample #: A0L060000-157

Prep Date.....: 12/03/10
Analysis Date..: 12/03/10 **Prep Batch #...:** 0340157
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acetonitrile	ND	20	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Allyl chloride	ND	2.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone (MEK)	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
Chloroprene	ND	2.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,4-Dioxane	ND	200	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isobutyl alcohol	ND	50	ug/L	SW846 8260B
Methacrylonitrile	ND	2.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MAWWK1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Propionitrile	ND	4.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	97	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	81	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: A0L060000-157 B **Work Order #:** MAWWK1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAHN81AA **Matrix.....:** WATER
MB Lot-Sample #: A0K240000-034
Prep Date.....: 11/24/10
Analysis Date..: 12/03/10 **Prep Batch #...:** 0328034
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAHN81AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	1.0	ug/L	SW846 8270C
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	**1.9 J**	**2.0**	**ug/L**	**SW846 8270C**
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	58	(27 - 111)
2-Fluorobiphenyl	58	(28 - 110)
Terphenyl-d14	75	(37 - 119)
Phenol-d5	51	(10 - 110)
2-Fluorophenol	15	(10 - 110)
2,4,6-Tribromophenol	62	(22 - 120)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAHN81AA **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

Environmental Resources Management Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A0K240000-034 B **Work Order #:** MAHN81AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAJ2M1AA **Matrix.....:** WATER
MB Lot-Sample #: A0K240000-322
Prep Date.....: 11/25/10
Analysis Date..: 12/06/10 **Prep Batch #...:** 0328322
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAJ2M1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	1.0	ug/L	SW846 8270C
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	59	(27 - 111)
2-Fluorobiphenyl	56	(28 - 110)
Terphenyl-d14	78	(37 - 119)
Phenol-d5	55	(10 - 110)
2-Fluorophenol	30	(10 - 110)
2,4,6-Tribromophenol	61	(22 - 120)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAJ2M1AA **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A0K240000-322 B **Work Order #:** MAJ2M1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Hexachlorophene	70-30-4	ND	M		ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MA3GJ1AA **Matrix.....:** WATER
MB Lot-Sample #: A0L090000-044

Prep Date.....: 12/09/10
Analysis Date..: 12/10/10 **Prep Batch #...:** 0343044
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	1.0	ug/L	SW846 8270C
bis(2-Chloroethyl)-ether	ND	1.0	ug/L	SW846 8270C
2-Chlorophenol	ND	1.0	ug/L	SW846 8270C
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8270C
2-Methylphenol	ND	1.0	ug/L	SW846 8270C
2,2'-oxybis(1-Chloro-propane)	ND	1.0	ug/L	SW846 8270C
4-Methylphenol	ND	1.0	ug/L	SW846 8270C
N-Nitrosodi-n-propyl-amine	ND	1.0	ug/L	SW846 8270C
Hexachloroethane	ND	1.0	ug/L	SW846 8270C
Nitrobenzene	ND	1.0	ug/L	SW846 8270C
Isophorone	ND	1.0	ug/L	SW846 8270C
2-Nitrophenol	ND	2.0	ug/L	SW846 8270C
2,4-Dimethylphenol	ND	2.0	ug/L	SW846 8270C
bis(2-Chloroethoxy) methane	ND	1.0	ug/L	SW846 8270C
2,4-Dichlorophenol	ND	2.0	ug/L	SW846 8270C
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8270C
Naphthalene	ND	0.20	ug/L	SW846 8270C
4-Chloroaniline	ND	2.0	ug/L	SW846 8270C
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8270C
4-Chloro-3-methylphenol	ND	2.0	ug/L	SW846 8270C
2-Methylnaphthalene	ND	0.20	ug/L	SW846 8270C
Hexachlorocyclopenta-diene	ND	10	ug/L	SW846 8270C
2,4,6-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2,4,5-Trichloro-phenol	ND	5.0	ug/L	SW846 8270C
2-Chloronaphthalene	ND	1.0	ug/L	SW846 8270C
2-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Dimethyl phthalate	ND	1.0	ug/L	SW846 8270C
Acenaphthylene	ND	0.20	ug/L	SW846 8270C
2,6-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
3-Nitroaniline	ND	2.0	ug/L	SW846 8270C
Acenaphthene	ND	0.20	ug/L	SW846 8270C

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MA3GJ1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,4-Dinitrophenol	ND	5.0	ug/L	SW846 8270C
4-Nitrophenol	ND	5.0	ug/L	SW846 8270C
Dibenzofuran	ND	1.0	ug/L	SW846 8270C
2,4-Dinitrotoluene	ND	5.0	ug/L	SW846 8270C
Diethyl phthalate	ND	1.0	ug/L	SW846 8270C
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Fluorene	ND	0.20	ug/L	SW846 8270C
4-Nitroaniline	ND	2.0	ug/L	SW846 8270C
4,6-Dinitro-2-methylphenol	ND	5.0	ug/L	SW846 8270C
N-Nitrosodiphenylamine	ND	1.0	ug/L	SW846 8270C
4-Bromophenyl phenyl ether	ND	2.0	ug/L	SW846 8270C
Hexachlorobenzene	ND	0.20	ug/L	SW846 8270C
Pentachlorophenol	ND	5.0	ug/L	SW846 8270C
Phenanthrene	ND	0.20	ug/L	SW846 8270C
Anthracene	ND	0.20	ug/L	SW846 8270C
Carbazole	ND	1.0	ug/L	SW846 8270C
Di-n-butyl phthalate	ND	1.0	ug/L	SW846 8270C
Fluoranthene	ND	0.20	ug/L	SW846 8270C
Pyrene	ND	0.20	ug/L	SW846 8270C
Butyl benzyl phthalate	ND	1.0	ug/L	SW846 8270C
3,3'-Dichlorobenzidine	ND	5.0	ug/L	SW846 8270C
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8270C
Chrysene	ND	0.20	ug/L	SW846 8270C
bis(2-Ethylhexyl) phthalate	ND	2.0	ug/L	SW846 8270C
Di-n-octyl phthalate	ND	1.0	ug/L	SW846 8270C
Benzo(b)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(k)fluoranthene	ND	0.20	ug/L	SW846 8270C
Benzo(a)pyrene	ND	0.20	ug/L	SW846 8270C
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8270C
Dibenz(a,h)anthracene	ND	0.20	ug/L	SW846 8270C
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(27 - 111)
2-Fluorobiphenyl	60	(28 - 110)
Terphenyl-d14	78	(37 - 119)
Phenol-d5	34	(10 - 110)
2-Fluorophenol	51	(10 - 110)
2,4,6-Tribromophenol	65	(22 - 120)

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METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MA3GJ1AA **Matrix.....:** WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Environmental Resources Management Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: A0L090000-044 B **Work Order #:** MA3GJ1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0K220421 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0K230000-012 **Prep Batch #...:** 0327012						
Arsenic	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AH
Lead	ND	3.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AJ
Selenium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AK
Thallium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AL
Antimony	ND	60.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AM
Beryllium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AN
Cadmium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AP
Chromium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AQ
Copper	ND	25.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AR
Nickel	ND	40.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AT
Silver	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AU
Zinc	**9.8 B**	**20.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAFHC1AV**
Mercury	ND	0.20 Dilution Factor: 1	ug/L	SW846 7470A	11/23-11/24/10	MAFHC1AF

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A0K220421 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0K230000-012 **Prep Batch #...:** 0327012						
Arsenic	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AW
Lead	ND	3.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AX
Selenium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A0
Thallium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A1
Antimony	ND	60.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A2
Beryllium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A3
Cadmium	ND	5.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A4
Chromium	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1A5
Copper	ND	25.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AA
Nickel	ND	40.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AC
Silver	ND	10.0 Dilution Factor: 1	ug/L	SW846 6010B	11/23-11/29/10	MAFHC1AD
Zinc	**9.8 B**	**20.0** Dilution Factor: 1	**ug/L**	**SW846 6010B**	**11/23-11/29/10**	**MAFHC1AE**
Mercury	ND	0.20 Dilution Factor: 1	ug/L	SW846 7470A	11/23-11/24/10	MAFHC1AG

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MATLP1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L030000-199 MATLP1AD-LCSD
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**95**	**(83 - 112)**			**SW846 8260B**
	96	**(83 - 112)**	**1.3**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**94**	**(85 - 110)**			**SW846 8260B**
	95	**(85 - 110)**	**0.48**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**90**	**(78 - 131)**			**SW846 8260B**
	95	**(78 - 131)**	**5.1**	**(0-30)**	**SW846 8260B**
Toluene	**91**	**(84 - 111)**			**SW846 8260B**
	89	**(84 - 111)**	**2.3**	**(0-30)**	**SW846 8260B**
Trichloroethene	**105**	**(76 - 117)**			**SW846 8260B**
	109	**(76 - 117)**	**3.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(75 - 121)
	99	(75 - 121)
1,2-Dichloroethane-d4	105	(63 - 129)
	107	(63 - 129)
Toluene-d8	92	(74 - 115)
	92	(74 - 115)
4-Bromofluorobenzene	89	(66 - 117)
	93	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MAWWK1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L060000-157 MAWWK1AD-LCSD
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340157
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**97**	**(83 - 112)**			**SW846 8260B**
	96	**(83 - 112)**	**1.4**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**101**	**(85 - 110)**			**SW846 8260B**
	100	**(85 - 110)**	**1.2**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**97**	**(78 - 131)**			**SW846 8260B**
	96	**(78 - 131)**	**1.3**	**(0-30)**	**SW846 8260B**
Toluene	**104**	**(84 - 111)**			**SW846 8260B**
	103	**(84 - 111)**	**0.64**	**(0-30)**	**SW846 8260B**
Trichloroethene	**105**	**(76 - 117)**			**SW846 8260B**
	104	**(76 - 117)**	**1.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(75 - 121)
	98	(75 - 121)
1,2-Dichloroethane-d4	90	(63 - 129)
	91	(63 - 129)
Toluene-d8	103	(74 - 115)
	102	(74 - 115)
4-Bromofluorobenzene	97	(66 - 117)
	100	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAHN81AC **Matrix.....:** WATER
LCS Lot-Sample#: A0K240000-034
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Phenol	**62**	**(14 - 112)**	**SW846 8270C**
2-Chlorophenol	**60**	**(27 - 110)**	**SW846 8270C**
1,4-Dichlorobenzene	**48**	**(19 - 110)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**64**	**(37 - 121)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**52**	**(25 - 110)**	**SW846 8270C**
4-Chloro-3-methylphenol	**67**	**(39 - 110)**	**SW846 8270C**
Acenaphthene	**64**	**(40 - 110)**	**SW846 8270C**
4-Nitrophenol	**64**	**(12 - 130)**	**SW846 8270C**
2,4-Dinitrotoluene	**74**	**(52 - 123)**	**SW846 8270C**
Pentachlorophenol	**54**	**(26 - 110)**	**SW846 8270C**
Pyrene	**64**	**(55 - 120)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(27 - 111)
2-Fluorobiphenyl	63	(28 - 110)
Terphenyl-d14	76	(37 - 119)
Phenol-d5	62	(10 - 110)
2-Fluorophenol	46	(10 - 110)
2,4,6-Tribromophenol	71	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAJ2M1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K240000-322 MAJ2M1AD-LCSD
Prep Date.....: 11/25/10 **Analysis Date..:** 12/06/10
Prep Batch #...: 0328322
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**49**	**(14 - 112)**			**SW846 8270C**
	58	**(14 - 112)**	**18**	**(0-30)**	**SW846 8270C**
2-Chlorophenol	**45**	**(27 - 110)**			**SW846 8270C**
	51	**(27 - 110)**	**13**	**(0-30)**	**SW846 8270C**
1,4-Dichlorobenzene	**36**	**(19 - 110)**			**SW846 8270C**
	55 p	**(19 - 110)**	**41**	**(0-30)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**53**	**(37 - 121)**			**SW846 8270C**
	65	**(37 - 121)**	**20**	**(0-30)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**38**	**(25 - 110)**			**SW846 8270C**
	54 p	**(25 - 110)**	**35**	**(0-30)**	**SW846 8270C**
4-Chloro-3-methylphenol	**60**	**(39 - 110)**			**SW846 8270C**
	64	**(39 - 110)**	**6.0**	**(0-30)**	**SW846 8270C**
Acenaphthene	**53**	**(40 - 110)**			**SW846 8270C**
	60	**(40 - 110)**	**13**	**(0-30)**	**SW846 8270C**
4-Nitrophenol	**69**	**(12 - 130)**			**SW846 8270C**
	66	**(12 - 130)**	**4.5**	**(0-30)**	**SW846 8270C**
2,4-Dinitrotoluene	**69**	**(52 - 123)**			**SW846 8270C**
	68	**(52 - 123)**	**1.1**	**(0-30)**	**SW846 8270C**
Pentachlorophenol	**61**	**(26 - 110)**			**SW846 8270C**
	62	**(26 - 110)**	**0.63**	**(0-30)**	**SW846 8270C**
Pyrene	**64**	**(55 - 120)**			**SW846 8270C**
	62	**(55 - 120)**	**2.5**	**(0-30)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	47	(27 - 111)
	62	(27 - 111)
2-Fluorobiphenyl	46	(28 - 110)
	60	(28 - 110)
Terphenyl-d14	73	(37 - 119)
	75	(37 - 119)
Phenol-d5	45	(10 - 110)
	57	(10 - 110)
2-Fluorophenol	28	(10 - 110)
	26	(10 - 110)
2,4,6-Tribromophenol	66	(22 - 120)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAJ2M1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K240000-322 MAJ2M1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	68	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MA3GJ1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L090000-044 MA3GJ1AD-LCSD
Prep Date.....: 12/09/10 **Analysis Date..:** 12/10/10
Prep Batch #...: 0343044
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**38**	**(14 - 112)**			**SW846 8270C**
	36	**(14 - 112)**	**6.1**	**(0-30)**	**SW846 8270C**
2-Chlorophenol	**70**	**(27 - 110)**			**SW846 8270C**
	64	**(27 - 110)**	**9.8**	**(0-30)**	**SW846 8270C**
1,4-Dichlorobenzene	**65**	**(19 - 110)**			**SW846 8270C**
	56	**(19 - 110)**	**15**	**(0-30)**	**SW846 8270C**
N-Nitrosodi-n-propyl-amine	**75**	**(37 - 121)**			**SW846 8270C**
	69	**(37 - 121)**	**8.6**	**(0-30)**	**SW846 8270C**
1,2,4-Trichloro-benzene	**65**	**(25 - 110)**			**SW846 8270C**
	59	**(25 - 110)**	**11**	**(0-30)**	**SW846 8270C**
4-Chloro-3-methylphenol	**72**	**(39 - 110)**			**SW846 8270C**
	68	**(39 - 110)**	**5.3**	**(0-30)**	**SW846 8270C**
Acenaphthene	**69**	**(40 - 110)**			**SW846 8270C**
	67	**(40 - 110)**	**4.0**	**(0-30)**	**SW846 8270C**
4-Nitrophenol	**45**	**(12 - 130)**			**SW846 8270C**
	41	**(12 - 130)**	**10**	**(0-30)**	**SW846 8270C**
2,4-Dinitrotoluene	**74**	**(52 - 123)**			**SW846 8270C**
	73	**(52 - 123)**	**1.2**	**(0-30)**	**SW846 8270C**
Pentachlorophenol	**63**	**(26 - 110)**			**SW846 8270C**
	66	**(26 - 110)**	**4.4**	**(0-30)**	**SW846 8270C**
Pyrene	**69**	**(55 - 120)**			**SW846 8270C**
	70	**(55 - 120)**	**1.9**	**(0-30)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	74	(27 - 111)
	69	(27 - 111)
2-Fluorobiphenyl	71	(28 - 110)
	66	(28 - 110)
Terphenyl-d14	82	(37 - 119)
	83	(37 - 119)
Phenol-d5	38	(10 - 110)
	34	(10 - 110)
2-Fluorophenol	54	(10 - 110)
	50	(10 - 110)
2,4,6-Tribromophenol	75	(22 - 120)

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MA3GJ1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0L090000-044 MA3GJ1AD-LCSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
	74	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K220421 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0K230000-012 **Prep Batch #...:** 0327012					
Arsenic	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CD
Lead	98	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CE
Selenium	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CF
Thallium	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CG
Antimony	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CH
Beryllium	106	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CJ
Cadmium	103	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CK
Chromium	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CL
Copper	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CM
Nickel	106	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CN
Silver	108	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CP
Zinc	107	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CQ
Mercury	97	(81 - 123)	SW846 7470A Dilution Factor: 1	11/23-11/24/10	MAFHC1CA

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0K220421 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: A0K230000-012 **Prep Batch #...:** 0327012					
Arsenic	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CR
Lead	98	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CT
Selenium	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CU
Thallium	97	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CV
Antimony	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CW
Beryllium	106	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1CX
Cadmium	103	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1C0
Chromium	99	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1C1
Copper	100	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1A6
Nickel	106	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1A7
Silver	108	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1A8
Zinc	107	(80 - 120)	SW846 6010B Dilution Factor: 1	11/23-11/29/10	MAFHC1A9
Mercury	97	(81 - 123)	SW846 7470A Dilution Factor: 1	11/23-11/24/10	MAFHC1CC

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MAD371AX-MS **Matrix.....:** WG
MS Lot-Sample #: A0K220421-004 MAD371A0-MSD
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10
Prep Date.....: 12/02/10 **Analysis Date..:** 12/02/10
Prep Batch #...: 0337199
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**91**	**(72 - 121)**			**SW846 8260B**
	97	**(72 - 121)**	**5.6**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**91**	**(80 - 110)**			**SW846 8260B**
	94	**(80 - 110)**	**4.0**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**86**	**(74 - 135)**			**SW846 8260B**
	97	**(74 - 135)**	**13**	**(0-30)**	**SW846 8260B**
Toluene	**88**	**(78 - 114)**			**SW846 8260B**
	93	**(78 - 114)**	**4.4**	**(0-30)**	**SW846 8260B**
Trichloroethene	**104**	**(66 - 120)**			**SW846 8260B**
	110	**(66 - 120)**	**5.8**	**(0-30)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
	103	(75 - 121)
1,2-Dichloroethane-d4	108	(63 - 129)
	110	(63 - 129)
Toluene-d8	92	(74 - 115)
	96	(74 - 115)
4-Bromofluorobenzene	89	(66 - 117)
	94	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0K220421 **Work Order #...:** MAD601AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A0K220428-001 MAD601AD-MSD
Date Sampled...: 11/19/10 **Date Received..:** 11/20/10
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340157
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**94**	**(72 - 121)**			**SW846 8260B**
	91	**(72 - 121)**	**3.2**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**95**	**(80 - 110)**			**SW846 8260B**
	94	**(80 - 110)**	**1.8**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethene	**98**	**(74 - 135)**			**SW846 8260B**
	98	**(74 - 135)**	**0.30**	**(0-30)**	**SW846 8260B**
Toluene	**99**	**(78 - 114)**			**SW846 8260B**
	98	**(78 - 114)**	**1.9**	**(0-30)**	**SW846 8260B**
Trichloroethene	**104**	**(66 - 120)**			**SW846 8260B**
	100	**(66 - 120)**	**4.8**	**(0-30)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(75 - 121)
	100	(75 - 121)
1,2-Dichloroethane-d4	88	(63 - 129)
	89	(63 - 129)
Toluene-d8	101	(74 - 115)
	102	(74 - 115)
4-Bromofluorobenzene	100	(66 - 117)
	101	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAD371A2-MS **Matrix.....:** WG
MS Lot-Sample #: A0K220421-004 MAD371A3-MSD
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10
Prep Date.....: 11/24/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0328034
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Phenol	**66**	**(16 - 110)**			**SW846 8270C**
	56	**(16 - 110)**	**16**	**(0-30)**	**SW846 8270C**
2-Chlorophenol	**64**	**(26 - 110)**			**SW846 8270C**
	55	**(26 - 110)**	**16**	**(0-30)**	**SW846 8270C**
1,4-Dichlorobenzene	**58**	**(17 - 110)**			**SW846 8270C**
	48	**(17 - 110)**	**19**	**(0-30)**	**SW846 8270C**
N-Nitrosodi-n-propyl- amine	**66**	**(25 - 119)**			**SW846 8270C**
	60	**(25 - 119)**	**9.2**	**(0-30)**	**SW846 8270C**
1,2,4-Trichloro- benzene	**54**	**(25 - 110)**			**SW846 8270C**
	52	**(25 - 110)**	**4.6**	**(0-30)**	**SW846 8270C**
4-Chloro-3-methylphenol	**71**	**(33 - 110)**			**SW846 8270C**
	67	**(33 - 110)**	**5.9**	**(0-30)**	**SW846 8270C**
Acenaphthene	**65**	**(36 - 110)**			**SW846 8270C**
	62	**(36 - 110)**	**3.9**	**(0-30)**	**SW846 8270C**
4-Nitrophenol	**68**	**(13 - 127)**			**SW846 8270C**
	63	**(13 - 127)**	**7.7**	**(0-30)**	**SW846 8270C**
2,4-Dinitrotoluene	**77**	**(46 - 119)**			**SW846 8270C**
	71	**(46 - 119)**	**8.6**	**(0-30)**	**SW846 8270C**
Pentachlorophenol	**74**	**(23 - 110)**			**SW846 8270C**
	70	**(23 - 110)**	**5.7**	**(0-30)**	**SW846 8270C**
Pyrene	**65**	**(54 - 115)**			**SW846 8270C**
	62	**(54 - 115)**	**4.8**	**(0-30)**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Nitrobenzene-d5	63	(27 - 111)
	55	(27 - 111)
2-Fluorobiphenyl	62	(28 - 110)
	57	(28 - 110)
Terphenyl-d14	77	(37 - 119)
	70	(37 - 119)
Phenol-d5	64	(10 - 110)
	54	(10 - 110)
2-Fluorophenol	50	(10 - 110)
	35	(10 - 110)

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: A0K220421 **Work Order #...:** MAD371A2-MS **Matrix.....:** WG
MS Lot-Sample #: A0K220421-004 MAD371A3-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4,6-Tribromophenol	76	(22 - 120)
	66	(22 - 120)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K220421 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0K220421-004 **Prep Batch #...:** 0327012							
Arsenic	97	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371A5
	97	(75 - 125)	0.11	(0-20)	SW846 6010B	11/23-11/29/10	MAD371A6
		Dilution Factor: 1					
Lead	97	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371A8
	97	(75 - 125)	0.20	(0-20)	SW846 6010B	11/23-11/29/10	MAD371A9
		Dilution Factor: 1					
Selenium	99	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CC
	100	(75 - 125)	0.52	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CD
		Dilution Factor: 1					
Thallium	95	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CF
	96	(75 - 125)	0.95	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CG
		Dilution Factor: 1					
Antimony	92	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CJ
	99	(75 - 125)	7.6	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CK
		Dilution Factor: 1					
Beryllium	104	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CM
	104	(75 - 125)	0.45	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CN
		Dilution Factor: 1					
Cadmium	101	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CQ
	101	(75 - 125)	0.08	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CR
		Dilution Factor: 1					
Chromium	99	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CU
	99	(75 - 125)	0.14	(0-20)	SW846 6010B	11/23-11/29/10	MAD371CV
		Dilution Factor: 1					
Copper	100	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371CX
	100	(75 - 125)	0.68	(0-20)	SW846 6010B	11/23-11/29/10	MAD371C0
		Dilution Factor: 1					
Nickel	104	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371C2
	105	(75 - 125)	1.2	(0-20)	SW846 6010B	11/23-11/29/10	MAD371C3
		Dilution Factor: 1					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0K220421 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	109	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371C5
	109	(75 - 125)	0.08	(0-20)	SW846 6010B	11/23-11/29/10	MAD371C6
		Dilution Factor: 1					
Zinc	105	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371C8
	107	(75 - 125)	1.6	(0-20)	SW846 6010B	11/23-11/29/10	MAD371C9
		Dilution Factor: 1					
Mercury	98	(69 - 134)			SW846 7470A	11/23-11/24/10	MAD371AQ
	94	(69 - 134)	4.4	(0-20)	SW846 7470A	11/23-11/24/10	MAD371AR
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0K220421 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0K220421-004 **Prep Batch #...:** 0327012							
Arsenic	97	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DC
	95	(75 - 125)	1.6	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DD
		Dilution Factor: 1					
Lead	97	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DF
	95	(75 - 125)	1.2	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DG
		Dilution Factor: 1					
Selenium	99	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DJ
	98	(75 - 125)	0.76	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DK
		Dilution Factor: 1					
Thallium	96	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DM
	94	(75 - 125)	1.2	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DN
		Dilution Factor: 1					
Antimony	99	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DQ
	100	(75 - 125)	1.5	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DR
		Dilution Factor: 1					
Beryllium	104	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DU
	102	(75 - 125)	1.5	(0-20)	SW846 6010B	11/23-11/29/10	MAD371DV
		Dilution Factor: 1					
Cadmium	101	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371DX
	100	(75 - 125)	0.63	(0-20)	SW846 6010B	11/23-11/29/10	MAD371D0
		Dilution Factor: 1					
Chromium	98	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371D2
	97	(75 - 125)	1.1	(0-20)	SW846 6010B	11/23-11/29/10	MAD371D3
		Dilution Factor: 1					
Copper	100	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371AC
	99	(75 - 125)	0.80	(0-20)	SW846 6010B	11/23-11/29/10	MAD371AD
		Dilution Factor: 1					
Nickel	105	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371AF
	104	(75 - 125)	1.0	(0-20)	SW846 6010B	11/23-11/29/10	MAD371AG
		Dilution Factor: 1					

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0K220421 **Matrix.....:** WG
Date Sampled...: 11/18/10 13:35 **Date Received..:** 11/20/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	109	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371AJ
	108	(75 - 125)	0.65	(0-20)	SW846 6010B	11/23-11/29/10	MAD371AK
		Dilution Factor: 1					
Zinc	105	(75 - 125)			SW846 6010B	11/23-11/29/10	MAD371AM
	104	(75 - 125)	0.69	(0-20)	SW846 6010B	11/23-11/29/10	MAD371AN
		Dilution Factor: 1					
Mercury	98	(69 - 134)			SW846 7470A	11/23-11/24/10	MAD371AU
	103	(69 - 134)	5.0	(0-20)	SW846 7470A	11/23-11/24/10	MAD371AV
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ERM	Client Project Manager: SARAH WOOD	Site Contact: AARON FREDERICY	Lab Contact:	COC No:
Address: 30775 ~~BAINBRIDGE~~ BAINBRIDGE RD. SUITE 180	Telephone: 440 - 542 - 0750	Telephone: 216 403 6773 440 542 0750	Telephone:	1 of 2 COCs
City/State/Zip: SOLON OH 44139	Email: sarah.wood@erm.com	Analysis Turnaround Time (in BUS days)	Analyses	
Phone: 440 542 0750		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GRUENER'S LAGOON	Method of Shipment/Carrier: UPS			
Project Number:	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) / Grab (G)	VOCs	SVOCs	Dissolved Metals	Total Metals						Sample Specific Notes / Special Instructions:
MW-1	11/18/10	0942		X					2	3			2		Y	G	X	X	X	X						
MW-1 DUPLICATE	11/18/10	0942		X					2	3			2		Y	G	X	X	X	X						
MW-7	11/18/10	1220		X					2	3			2		Y	G	X	X	X	X						
MW-3	11/18/10	1335		X					2	3			2		Y	G	X	X	X	X						
MW-3 MS/DS	11/18/10	1335		X					4	6			4		Y	G	X	X	X	X						
RINSE BLANK #2	11/18/10	1518		X					2	3			2		Y	G	X	X	X	X						
MW-6	11/18/10	1611		X					2	3			2		Y	G	X	X	X	X						
MW-4	11/18/10	1700		X					2	3			2		Y	G	X	X	X	X						
MW-8	11/19/10	0925		X					2	3			2		Y	G	X	X	X	X						
MW-2	11/19/10	1040		X					2	3			2		Y	G	X	X	X	X						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

11/19/10 1300

Relinquished by:	Company: ERM	Date/Time: ~~11/19/10~~	Received by: UPS	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 11/20/10 930

TAL-0018 (1008)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: ERM	SARAH WOOD	AARON FREDERICK		
Address: 30775 BAINBRIDGE RD. STE K60	Telephone: 440 543 0750	Telephone: 216 403 6773	Telephone:	2 of 2 COCs
City/State/Zip: SOLON, OH 44139	Email: sarah.wood@erm.com	Analysis Turnaround Time (in BUS days)		
Phone: 440 542 0750		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GREINERS LAGOON	Method of Shipment/Carrier: UPS			
Project Number:	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y / N)	Composite (C) / Grab (G)	Analyses: VOCs	SVOCs	Dissolved Metals	Total Metals	Sample Specific Notes / Special Instructions:
MW-5	11/19/10	1130		X					2	3			2		Y	G	X	X	X	X	
TRIP BLANK	11/19/10	1230		X						2							X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: ERM	Date/Time: 11/19/10 1300	Received by: UPS	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 11/20/10 930

TAL-0018 (1008)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 440K220421
North Canton Facility

Client ERM Project Grieners By: (Signature)
Cooler Received on 11/20/10 Opened on 11-22-10
FedEx ☐ UPS ☒ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other
TestAmerica Cooler # Multiple Coolers ☑ Foam Box ☐ Client Cooler ☐ Other

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 3 Quantity Unsalvageable
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other
6. Cooler temperature upon receipt °C See back of form for multiple coolers/temps ☒
   METHOD: IR ☒ Other ☐
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☑ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM PJD Date 11/22/10 by CSL via Verbal ☑ Voice Mail ☐ Other ☐
Concerning #16

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) 2-500 MN-5 were further preserved in Sample Receiving to meet recommended pH level(s). ~~*Nitric Acid Lot# 051010-HNO_3;*~~ *Sulfuric Acid Lot# 051010-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN$/NaOH.* What time was preservative added to sample(s)? 10:45AM

Client ID	pH	Date	Initials
1	2 2 2	11/22/10	CSL
1 DUP	2 2 2		
2	2 2 2		
3	2 2 2 2 2 2 2 2 2 2		
RB #2	2 2 2		
6	2 2 2		
4	2 2 2		
8	2 2 2		

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
2	12 12	11/22/10	CSL
5	12 12	+	+

Cooler #	Temp. °C	Method	Coolant
L236	1.4°C	IR	wet ice
A313	3.3°C	"	"
A99	3.2°C	"	"
K401	2.8°C	"	"

Discrepancies Cont'd:

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END OF REPORT

Appendix E
Mann-Kendall Test Descriptions and Output

Nonparametric Statistical Tests for
Determining the Effectiveness of Natural Attenuation

Two nonparametric statistical tests are described here: the Mann-Kendall (S) and Mann-Whitney (U) statistical tests. These tests can be used to show whether groundwater contaminant concentrations in a monitoring well are increasing, stable or decreasing. However, neither test is able to determine the rate in which the concentrations are changing over time. The Mann-Kendall Test can be used with a minimum of four (4) rounds of sampling results; however, the Mann-Kendall Test is not valid for data that exhibit seasonal behavior. The Mann-Whitney U Test is applicable to data that may or may not exhibit seasonal behavior, but the test requires eight (8) consecutive rounds of quarterly or semi-annual sampling results. To demonstrate that natural attenuation is effective, the chosen statistical test must show decreasing contaminant concentrations at an appropriate confidence level, given in the test methodologies that follow.

Mann-Kendall Test

1. Assemble well data for at least four (4) sampling events for each contaminant in the order in which the data was collected. Include all contaminants that have exceeded the ES at one or more monitoring wells. Include data from:

   a. One or more contaminated monitoring wells near the downgradient plume margin, which may include piezometers,

   b. A monitoring well near the source zone, and

   c. At least one monitoring well along a flow line between the source zone well and plume margin well.

2. For purposes of the Mann-Kendall test, all non-detect data values should be assigned a single value that is less than the detection limit, even if the detection limit varies over time.

3. Tests for Seasonality in Data. For seasonally affected data, either remove the seasonality in the data (e.g., by only testing data from the seasons with the highest contaminant concentrations) or use a statistical test that is unaffected by seasonality, such as the Mann-Whitney U Test. To test for data seasonality:

   a. Determine if groundwater flow direction changes with season by comparing a water table map from each season that the contaminant concentrations are measured. If the flow direction changes from one sampling period to another and shifts the plume away from the wells being used in the statistical test, then data from those season(s) that are shifted away from the centerline monitoring wells can not be used in the Mann-Kendall Test.

b. Determine if groundwater elevation and contaminant concentration change seasonally. Plot contaminant concentration versus groundwater level for each well to be assessed by the Mann-Kendall Test. If groundwater concentrations change as water level changes, then the data is seasonally affected. The seasons with the highest contaminant concentrations should be included in the Mann-Kendall Test.

4. Calculate the Mann-Kendall Statistic (S) using a manual method or a DNR supplied spreadsheet. Assess all contaminants in the plume for the selected wells being assessed with the Mann-Kendall Test. Enter data for each contaminant in the order it was collected.

a. Manual Method to Calculate Mann-Kendall Statistic. Compare data sequentially, comparing sampling event 1 to sampling events 2 through n, then sampling event 2 to sampling events 3 through n, etc. Each row is filled in with a 1, 0 or –1, as follows:

Along row 2, if:
- Concentration of event x_i > event 1: Enter +1
- Concentration of event x_i = event 1: Enter 0
- Concentration of event x_i < event 1: Enter – 1

Where: n = total number of sampling events
x_i = value of given sample event, with i = 2 to n

Continue for the remaining rows. Sum each row and enter result at the end of the row. Add the sum of each row down to obtain the Mann-Kendall Statistic (S). See Table A as an example.

Table A
Mann-Kendall Statistic

	Sampling Event 1	Sampling Event 2	Sampling Event 3	Sampling Event 4	Sampling Event 5	
Contaminant concentration ›	100	50	85	75	50	Sum Rows
Compare to Event 1	›	-1	-1	-1	-1	- 4
Compare to Event 2		›	+1	+1	0	+ 2
Compare to Event 3			›	-1	-1	- 2
Compare to Event 4				›	-1	- 1
				Mann Kendall Statistic (Total) =		- 5

b. Manual Mann-Kendall Statistic Look up Table. Table B gives the maximum S statistic (S_{max}) to accept a declining trend alternative at an α level of significance. If the

computed S is greater than S_{max} (or S is a smaller negative number than S_{max}), then there is either a no-trend or an increasing trend in the data.

Table B
Mann-Kendall Statistic Look Up Table

N	Range of S	S_{max} $\alpha = 0.2$*
4	- 6 to + 6	- 4
5	- 10 to + 10	- 5
6	- 15 to + 15	- 6
7	- 21 to + 21	- 7
8	- 28 to + 28	- 8
9	- 36 to + 36	-10
10	- 45 to +45	-11

* The probability that the computed Mann-Kendall statistic $S \leq S_{max}$ is at most α.

5. Test for a declining trend. Evaluate data trends for each contaminant identified in the plume. Evaluate the null hypothesis of no trend against the alternative of a decreasing trend. The null hypothesis can be rejected in favor of a decreasing trend if both of the following conditions are met:

   a. S is a large negative number (see Table B for magnitude of S)

   b. The probability value, given n (number of data) and the absolute value of S, is LESS than the a priori significance level, α, of the test. An $\alpha \leq 0.2$ is acceptable.

6. Test for an increasing trend. An increasing trend alternative (i.e., an advancing plume) is shown if both of the following conditions are met:

   a. S is positive.

   b. $S \geq |S_{max}|$ at a given α level of significance (see Table B). If the computed S is equal to or greater than the absolute value of S_{max}, then it can be concluded the plume is advancing at an α level of significance. An $\alpha \leq 0.2$ is acceptable for this test.

7. Test for Plume Stability. If the Mann-Kendall Test indicates no-trend is present, perform the coefficient of variation test. As a non-parametric test, the Mann-Kendall Test does not take into account the magnitude of scatter in the data. A data set with a great deal of scatter may return a Mann-Kendall test indicating there is no trend, when, in fact, no conclusion can be drawn regarding trend because of data variability. In this case, additional data collection may be necessary to determine that the plume is stable, declining or advancing. As a simple test, the coefficient of variation can assess the scatter in the data:

$$CV = \frac{\text{standard deviation}}{\text{arithmetic mean}}$$

Where: CV = coefficient of variation

CV should be ≤ 1 to say that the no-trend hypothesis also indicates a stable plume configuration.

Mann-Whitney U Test. This test is equivalent to the Wilcoxon Rank Sum Test.

1. Assemble well data for the most recent eight (8) consecutive quarterly or semi-annual sampling events for each contaminant that has exceeded the ES at one or more monitoring wells. Include data from:

   a. One or more contaminated monitoring wells near the downgradient plume margin, which may include piezometers,

   b. A monitoring well near the source zone, and

   c. At least one monitoring well along a flow line between the source zone well and plume margin well.

2. Enter the data into a DNR supplied spreadsheet or manually assemble the data into a table (e.g., Table C) in the order the data was collected. Assign a rank to each sample value, with the smallest value ranked #1 and the largest value ranked #8.

3. For purposes of the Mann-Whitney U test, all non-detect values should be assigned a data value of zero (0).

Table C
Example Data Set for the Mann-Whitney U Statistical Test

Year/Date	Benzene Concentration (ug/l)	Rank	Rank Sum of 1st Year (Wrs)
1st Year, 1st Quarter	160	8	25
1st Year, 2nd Quarter	130	7	
1st Year, 3rd Quarter	80	4	
1st Year, 4th Quarter	100	6	
2nd Year, 1st Quarter	89	5	
2nd Year, 2nd Quarter	0	1	
2nd Year, 3rd Quarter	53	3	
2nd Year, 4th Quarter	24	2	
		U = 26 – Wrs = 1	

4. Sum the ranks for the data in the 1st year. Denote this sum as Wrs (or the Wilcoxon rank sum).

5. Calculate the U Statistic. U = 26 – Wrs

6. Interpreting U Statistic. For 2 groups of 4 samples, at $U \leq 3$, the probability that year 2 data show a decrease relative to year 1 data is at least 90%, and so $U \leq 3$ will be acceptable to show that contaminant concentration is declining.

7. If there are ties in sample data, calculate an average rank value for the tied data and assign this average rank to the tied sample data. See example in Table D.

Table D
Example of Rank Sum Value for Tied Data

Year/Date	Benzene Concentration (ug/l)	Check for Ties	Rank	Rank Sum of 1st Year (Wrs)
1st Year, 1st Quarter	300		8	
1st Year, 2nd Quarter	280		7	24.5
1st Year, 3rd Quarter	105		4	
1st Year, 4th Quarter	110	*	5.5	
2nd Year, 1st Quarter	83		3	
2nd Year, 2nd Quarter	50	√	1.5	
2nd Year, 3rd Quarter	110	*	5.5	
2nd Year, 4th Quarter	50	√	1.5	
			U = 26 – Wrs	= 1.5

8. Probability and the U Statistic. Table E shows the α value and the confidence level for values of U calculated for 2 groups of 4 samples each.

Table E
Probability and U Statistic
(For 2 Groups of 4 samples each)

U Statistic	Level of significance (α)	Confidence Level (%)
0	0.014	98.6
1	0.029	97.1
2	0.057	94.3
3	0.100	90.0

9. If more than 8 consecutive rounds of data are available, a Mann-Whitney U statistic can be calculated similar to the method presented here. Each set of data to be compared should represent the same span of time (e.g. 1 year) and the same time interval between samples (e.g., quarterly). The test must be conducted at a level of significance (α) of ≤ 0.10.

References:

Conover, W.J., Practical Nonparametric Statistics, 2nd Ed., John Wiley & Sons, 1971, pp. 216 223.

Gilbert, R.O., Statistical Methods for Environmental Pollution Monitoring, Van Nostrand Reinhold, 1987, pp. 204 – 240 and 272.

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-5

	Compound ->	Benzene	Antimony	Arsenic			
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event Number	Sampling Date (most recent last)						
1	Nov-98	63	30.0	18.0			
2	Nov-06	30	30.0	30.3			
3	Nov-07	22	110.0	83.3			
4	Nov-08	11	91.4	33.5			
5	Nov-09	13	155.0	15.1			
6	Nov-10	13	104.0	11.0			
7							
8							
9							
10							

Mann Kendall Statistic (S) =	-10.0	8.0	-5.0	0.0	0.0	0.0
Number of Rounds (n) =	6	6	6	0	0	0
Average =	25.33	86.73	31.87	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	19.806	48.906	26.681	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.782	0.564	0.837	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected				n<4	n<4	n<4
Trend ≥ 80% Confidence Level	DECREASING	INCREASING	No Trend	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	DECREASING	INCREASING	No Trend	n<4	n<4	n<4
Stability Test, If No Trend Exists at			CV <= 1	n<4	n<4	n<4
80% Confidence Level	NA	NA	STABLE	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-6

Event Number	Sampling Date (most recent last)	Compound -> Benzene Concentration	Arsenic Concentration	Concentration	Concentration	Concentration	Concentration
1	Nov-98	18.0	66.0				
2	Nov-06	1.5	24.0				
3	Nov-07	1.6	45.9				
4	Nov-08	10.0	16.9				
5	Nov-09	10.0	130.0				
6	Nov-10	10.0	30.7				
7							
8							
9							
10							

Mann Kendall Statistic (S) =	2.0	-1.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	6	0	0	0	0
Average =	8.52	52.25	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	6.223	41.920	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.731	0.802	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected			n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	No Trend	No Trend	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	No Trend	No Trend	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at	CV <= 1	CV <= 1	n<4	n<4	n<4	n<4
80% Confidence Level	STABLE	STABLE	n<4	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-7

Event Number	Sampling Date (most recent last)	Compound -> Benzene Concentration	Arsenic Concentration	Concentration	Concentration	Concentration	Concentration
1	Nov-98	23.0	86.0				
2	Nov-06	13.0	88.5				
3	Nov-07	9.2	246.0				
4	Nov-08	5.7	192.0				
5	Nov-09	2.9	264.0				
6	Nov-10	1.9	75.7				
7							
8							
9							
10							

Mann Kendall Statistic (S) =	-15.0	3.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	6	0	0	0	0
Average =	9.28	158.70	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	7.875	85.931	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.848	0.541	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected			n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	DECREASING	No Trend	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	DECREASING	No Trend	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at		CV <= 1	n<4	n<4	n<4	n<4
80% Confidence Level	NA	STABLE	n<4	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-8

	Compound ->	Arsenic					
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event Number	Sampling Date (most recent last)						
1	Nov-98	39.0					
2	Nov-06	5.0					
3	Nov-07	5.0					
4	Nov-08	5.0					
5	Nov-09	39.0					
6	Nov-10	4.0					
7							
8							
9							
10							

Mann Kendall Statistic (S) =	-5.0	0.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	0	0	0	0	0
Average =	16.17	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	17.691	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	1.094	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected		n<4	n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at	CV > 1	n<4	n<4	n<4	n<4	n<4
80% Confidence Level	NON-STABLE	n<4	n<4	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-9

	Compound ->	Arsenic					
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event Number	Sampling Date (most recent last)						
1	Nov-98	16.0					
2	Nov-06	19.5					
3	Nov-07	19.5					
4	Nov-08	19.8					
5	Nov-09	28.6					
6	Nov-10	31.1					
7							
8							
9							
10							

Mann Kendall Statistic (S) =	14.0	0.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	0	0	0	0	0
Average =	22.42	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	5.978	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.267	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected		n<4	n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	INCREASING	n<4	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	INCREASING	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at 80% Confidence Level	NA	n<4 n<4	n<4 n<4	n<4 n<4	n<4 n<4	n<4 n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-11

	Compound ->	Arsenic					
		Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Event Number	Sampling Date (most recent last)						
1	Nov-98	11.0					
2	Nov-06	5.0					
3	Nov-07	5.0					
4	Nov-08	5.0					
5	Nov-09	5.0					
6	Nov-10	10.7					
7							
8							
9							
10							

Mann Kendall Statistic (S) =	-1.0	0.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	0	0	0	0	0
Average =	6.95	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	3.022	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.435	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected		n<4	n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at	CV <= 1	n<4	n<4	n<4	n<4	n<4
80% Confidence Level	STABLE	n<4	n<4	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Mann-Kendall Statistical Test

Site Name	Greiners Lagoon	Well Number	MW-13

Event Number	Sampling Date (most recent last)	Compound -> Arsenic Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
1	Nov-98	39.0					
2	Nov-06	5.0					
3	Nov-07	5.0					
4	Nov-08	5.0					
5	Nov-09	22.1					
6	Nov-10	23.4					
7							
8							
9							
10							

Mann Kendall Statistic (S) =	2.0	0.0	0.0	0.0	0.0	0.0
Number of Rounds (n) =	6	0	0	0	0	0
Average =	16.58	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Standard Deviation =	14.014	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Coefficient of Variation(CV)=	0.845	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Error Check, Blank if No Errors Detected		n<4	n<4	n<4	n<4	n<4
Trend ≥ 80% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Trend ≥ 90% Confidence Level	No Trend	n<4	n<4	n<4	n<4	n<4
Stability Test, If No Trend Exists at	CV <= 1	n<4	n<4	n<4	n<4	n<4
80% Confidence Level	STABLE	n<4	n<4	n<4	n<4	n<4

Data Entry By =	AK	Date =	14-Feb-11	

Appendix F
Risk Assessment Calculation Tables

Estimated Cancer and Non-Cancer Risks Associated with Dermal Exposure with On-site Perched Ground Water
On-Site Construction/Utility Worker

Parameter Code	Parameter Definition	Values for Adult Exposure	Units	Rationale/ Reference	Intake Equation/ Model Name
DA_{event}	Absorbed dose per event	chemical-specific	mg/cm^2-event	USEPA 2004	Where Dermal Absorbed Dose per Event (DA_{event}) =
SA	Skin Surface Area Available for Contact	3,300	cm^2	USEPA 2002 – Recommended value for construction worker (Exhibit 1-2).	Inorganics - DAevent (mg/cm2-event) = CW x CF x tevent x Kp
FA	Fraction Absorbed	1	unitless	USEPA 2004	
ET	Exposure Time	1.0	hrs/day	USEPA 2004	
EV	Event Frequency	1	events/day	USEPA 2004	Organics -
EF	Exposure Frequency	20	days/yr	Professional judgment	USEPA RAGS Part E: Equation 3.2/3.3 (2004) Calc'd using USEPA Part E spreadsheet
ED	Exposure Duration	1	yr	EPA 1991	
CF	Conversion Factor	0.001	L/cm^3	–	
BW	Body Weight	70	kg	EPA 1991	
AT-C	Averaging Time (Cancer)	25,550	days	USEPA 1989	
AT-N	Averaging Time (Non-Cancer)	365	days	USEPA 1989	
IF-C	Intake Factor (Cancer)	3.7E-02	event-cm^2/kg-day	calculated	IF = SA x EV x EF x ED x 1/BW x 1/AT-C
IF-NC	Intake Factor (Non-cancer)	2.6E+00	event-cm^2/kg-day	calculated	IF = SA x EV x EF x ED x 1/BW x 1/AT-N

Constituent	Maximum On-Site Groundwater Concentration (mg/L)	Toxicity Values: Dermal Cancer Slope Factor (mg/kg-day)-1	Toxicity Values: Dermal Reference Dose (mg/kg-day)	DAevent (mg/cm2-event)	On-Site Groundwater Estimated Dermal Exposure Risks: Cancinogenic Risk	On-Site Groundwater Estimated Dermal Exposure Risks: Noncancinogenic Risk
acetone	0.23	NA	9.0E-01	5.31E-07	NA	1.5E-06
benzene	0.013	5.5E-02	4.0E-03	8.45E-07	1.7E-09	5.5E-04
4-methyl-2-pentanone	0.34	NA	8.0E-02	4.28E-06	NA	1.30E-05
methyl ethyl ketone	0.042	NA	6.0E-01	1.85E-07	NA	2.4E-07
ethylbenzene	0.0024	1.1E-02	1.0E-01	5.03E-07	2.0E-10	1.3E-05
ethylmethacrylate	0.00023	NA	9.0E-02	NC	NA	NA
isobutyl alcohol	0.011	NA	3.0E-01	NC	NA	NA
trichloroethene	0.002	5.9E-03	NA	1.15E-07	2.5E-11	NA
toluene	0.007	NA	8.0E-02	9.34E-07	NA	3.0E-05
xylene	0.0052	NA	2.0E-01	1.09E-06	NA	1.4E-05
antimony	0.104	NA	6.0E-05	3.60E-08	NA	1.8E-03
arsenic	0.0757	1.5E+00	3.0E-04	3.03E-07	1.7E-08	2.6E-03
nickel	0.14	NA	8.0E-04	1.12E-07	NA	3.3E-04
selenium	0.0094	NA	5.0E-03	3.76E-08	NA	1.9E-05
Total Carcinogenic and Noncarcinogenic Risks for Dermal Exposure with On-Site Groundwater =					**1.9E-08**	**5.4E-03**

NA - Not Available
NC - Not Calculated

Estimated Cancer and Non-Cancer Risks Associated with Dermal Exposure with Off-site Perched Ground Water
Off-Site Construction/Utility Worker

Parameter Code	Parameter Definition	Values for Adult Exposure	Units	Rationale/ Reference	Intake Equation/ Model Name
DA_{event}	Absorbed dose per event	chemical-specific	mg/cm^2-event	USEPA 2004	Where Dermal Absorbed Dose per Event (DA_{event}) =
SA	Skin Surface Area Available for Contact	3,300	cm^2	USEPA 2002 – Recommended value for construction worker (Exhibit 1-2).	**Inorganics -** DAevent (mg/cm2-event) = CW x CF x tevent x Kp
FA	Fraction Absorbed	1	unitless	USEPA 2004	
ET	Exposure Time	1.0	hrs/day	USEPA 2004	
EV	Event Frequency	1	events/day	USEPA 2004	**Organics -** USEPA RAGS Part E: Equation 3.2/3.3 (2004) Calc'd using USEPA Part E spreadsheet
EF	Exposure Frequency	20	days/yr	Professional judgment	
ED	Exposure Duration	1	yr	EPA 1991	
CF	Conversion Factor	0.001	L/cm^3	–	
BW	Body Weight	70	kg	EPA 1991	
AT-C	Averaging Time (Cancer)	25,550	days	USEPA 1989	
AT-N	Averaging Time (Non-Cancer)	365	days	USEPA 1989	
IF-C	Intake Factor (Cancer)	3.7E-02	event-cm^2/kg-day	calculated	IF = SA x EV x EF x ED x 1/BW x 1/AT-C
IF-NC	Intake Factor (Non-cancer)	2.6E+00	event-cm^2/kg-day	calculated	IF = SA x EV x EF x ED x 1/BW x 1/AT-N

Constituent	Maximum Off-Site Groundwater Concentration (mg/L)	Toxicity Values: Dermal Cancer Slope Factor (mg/kg-day)-1	Toxicity Values: Dermal Reference Dose (mg/kg-day)	DAevent (mg/cm2-event)	On-Site Groundwater Estimated Dermal Exposure Risks: Cancinogenic Risk	On-Site Groundwater Estimated Dermal Exposure Risks: Noncancinogenic Risk
acetone	0.028	NA	9.0E-01	6.47E-08	NA	1.9E-07
4-methyl-2-pentanone	0.0022	NA	8.0E-02	2.77E-08	NA	8.95E-08
methyl ethyl ketone	0.00057	NA	6.0E-01	2.51E-09	NA	3.2E-09
arsenic	0.0311	1.5E+00	3.0E-04	1.24E-07	6.9E-09	1.1E-03
nickel	0.0053	NA	8.0E-04	4.24E-09	NA	1.4E-05
Total Carcinogenic and Noncarcinogenic Risks for Dermal Exposure with Off-Site Groundwater =					**6.9E-09**	**1.1E-03**

NA - Not Available
NC - Not Calculated

Estimated VOC Concentrations in Trench Air migrating from On-site Perched Ground Water
On-Site Construction/Utility Worker

	Maximum On-Site Groundwater Concentration mg/cm^3	MW g/mole	K_{iL} cm/sec	K_{iG} cm/sec	Ideal Gas Law Constant	Temperature	Henry's Law Constant * atm-m3/mole	Ki cm/sec	Area cm2	Emission Rate mg/sec	Air Concentration mg/m3
acetone	0.00023	58.08	0.004527845	0.56261639	0.000082	298	0.000035	0.00068409	9.29E+04	0.014617457	1.35E-03
benzene	0.000013	78.11	0.003904375	0.50945352	0.000082	298	0.00555	0.00377693	9.29E+04	0.004561545	4.22E-04
4-methyl-2-pentanone	0.00034	100.16	0.003447924	0.46873642	0.000082	298	0.000138	0.00149747	9.29E+04	0.047300464	4.38E-03
methyl ethyl ketone	0.000042	72.11	0.004063564	0.52327839	0.000082	298	0.0000569	0.00093739	9.29E+04	0.003657631	3.39E-04
ethylbenzene	0.0000024	106.17	0.003348913	0.45967479	0.000082	298	0.00788	0.00327493	9.29E+04	0.000730201	6.76E-05
ethylmethacrylate	0.00000023	100	0.003448613	0.46879914	0.000082	298	0.000319	0.00220569	9.29E+04	4.71306E-05	4.36E-06
isobutyl alcohol	0.000011	74.12	0.004008087	0.5184811	0.000082	298	0.00000978	0.0001973	9.29E+04	0.000201624	1.87E-05
trichloroethene	0.000002	131.39	0.003010396	0.42799916	0.000082	298	0.00985	0.00295877	9.29E+04	0.000549757	5.09E-05
toluene	0.000007	92.14	0.00359485	0.48202675	0.000082	298	0.00664	0.00349882	9.29E+04	0.002275358	2.11E-04
xylene	0.0000052	106.17	0.003348913	0.45967479	0.000082	298	0.00518	0.00323764	9.29E+04	0.001564091	1.45E-04

* = Regional Screening Level (RSL) chemical-specific parameters supporting table (USEPA, November 2010).

$C_a = E_i / LS \times V \times MH$; where C_a is the Ambient Air Concentration (mg/m^3)

$K_{iG} = (MW_{H2O}/MW_i)^{0.335} \times (T/298)^{1.005} \times (k_{iG}, O_2)$; where KiG is the Gas Phase Mass Transfer Coefficient (cm/second)

$K_{iL} = (MW_{O2}/MW_i)^{0.5} \times (T/298) \times (k_L, O_2)$; where K_{iL} is the Liquid Phase Mass Transfer Coefficient (cm/second)

$K_i^{-1} = K_{iL}^{-1} + ((R \times T)/(H_i \times K_{iG}))$; where K_i is the Overall Mass Transfer Coefficient (cm/second)

$E_i = K_i \times C_a \times A$; where E_i is the Emission Rate (mg/second)

Input Variables:	Value	Units	
Contaminant Liquid Phase Concentration, C_a =	Chem Specific	mg/cm^3	
Area, A =	9.29E+04	cm^2	=L x W = 20 ft x 5 ft = 100 ft^2 = 92,903 cm^2
Ideal Gas Law Constant, R =	8.20E-05	atm-m3/mole-degK	
Temperature, T =	298	degK	
Henry's Law Constant for Compound I, H_i =	Chem Specific	$atm\text{-}m^3/mole$	
Molecular Weight of Oxygen , MW_{O2} =	32	g/mole	
Molecular Weight of Water, MW_{H2O} =	18	g/mole	
Molecular Weight of Compound i, MW_i =	Chem Specific	g/mole	
Liquid Phase Mass Transfer Coefficient for Oxygen at 25 degC, k_L, O_2 =	0.0061	cm/second	
Gas Phase Mass Transfer Coefficient for Water Vapor at 25 degC, k_{iG}, O_2 =	0.833	cm/second	
Length of side perpendicular to the wind, LS =	2.4	meters	= 8 feet
Average wind speed, V =	2.25	m/second	
Mixing Height before being inhaled, MH =	2	meters	

Estimated VOC Concentrations in Trench Air migrating from Off-site Perched Ground Water
On-Site Construction/Utility Worker

	Maximum On-Site Groundwater Concentration mg/cm^3	MW g/mole	K_{iL} cm/sec	K_{iG} cm/sec	Ideal Gas Law Constant	Temperature	Henry's Law Constant * atm-m3/mole	Ki cm/sec	Area cm2	Emission Rate mg/sec	Air Concentration mg/m3
acetone	0.000028	58.08	0.004527845	0.56261639	0.000082	298	0.000035	0.00068409	9.29E+04	0.001779517	1.65E-04
4-methyl-2-pentanone	0.0000022	100.16	0.003447924	0.46873642	0.000082	298	0.000138	0.00149747	9.29E+04	0.000306062	2.83E-05
methyl ethyl ketone	0.00000057	72.11	0.004063564	0.52327839	0.000082	298	0.0000569	0.00093739	9.29E+04	4.96393E-05	4.60E-06

* = Regional Screening Level (RSL) chemical-specific parameters supporting table (USEPA, November 2010).

$C_a = E_i / LS \times V \times MH$; where C_a is the Ambient Air Concentration (mg/m^3)

$K_{iG} = (MW_{H2O}/MW_i)^{0.335} \times (T/298)^{1.005} \times (k_{iG}, O_2)$; where KiG is the Gas Phase Mass Transfer Coefficient (cm/second)

$K_{iL} = (MW_{O2}/MW_i)^{0.5} \times (T/298) \times (k_i, O_2)$; where K_{iL} is the Liquid Phase Mass Transfer Coefficient (cm/second)

$K_i^{-1} = K_{iL}^{-1} + ((R \times T)/(H_i \times K_{iG}))$; where K_i is the Overall Mass Transfer Coefficient (cm/second)

$E_i = K_i \times C_a \times A$; where E_i is the Emission Rate (mg/second)

Input Variables:	Value	Units	
Contaminant Liquid Phase Concentration, C_a =	Chem Specific	mg/cm^3	
Area, A =	9.29E+04	cm^2	=L x W = 20 ft x 5 ft = 100 ft^2 = 92,903 cm^2
Ideal Gas Law Constant, R =	8.20E-05	atm-m3/mole-degK	
Temperature, T =	298	degK	
Henry's Law Constant for Compound I, H_i =	Chem Specific	atm-m^3/mole	
Molecular Weight of Oxygen , MW_{O2} =	32	g/mole	
Molecular Weight of Water, MW_{H2O} =	18	g/mole	
Molecular Weight of Compound i, MW_i =	Chem Specific	g/mole	
Liquid Phase Mass Transfer Coefficient for Oxygen at 25 degC, k_i, O_2 =	0.0061	cm/second	
Gas Phase Mass Transfer Coefficient for Water Vapor at 25 degC, k_{iG}, O_2 =	0.833	cm/second	
Length of side perpendicular to the wind, LS =	2.4	meters	= 8 feet
Average wind speed, V =	2.25	m/second	
Mixing Height before being inhaled, MH =	2	meters	

Estimated Cancer and Non-Cancer Risks Associated with Inhalation Exposure of VOCs in Trench Air migrating from On-site Perched Ground Water
On-Site Construction/Utility Worker

Exposure Route	Parameter Code	Parameter Definition	Units	Values for Adult Exposure	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	CA	Chemical Concentration in Trench Air	mg/m^3		Modeled concentration in Trench Air	Exposure Concentration (EC) (mg/m^3) =
	ET	Exposure Time - Outdoor	hr/day	1	Professional Judgment -- assumes 1 hr of workday in trench	(CA x ET x EF x ED)/AT
	EF	Exposure Frequency - Outdoor	days/yr	20	Professional Judgment	
	ED	Exposure Duration	yr	1	Professional Judgment -- assumes 1 year construction duration	
	AT_c	Averaging Time for Carcinogens	hours	613,200	USEPA 2009	
	AT_{nc}	Averaging Time for Noncarcinogens	hours	8,760	USEPA 2009	

		Toxicity Values			VOCs in Trench Air Estimated Inhalation Exposure Risks	
Constituent	Concentration in Trench Air mg/m^3	Inhalation Unit Risk Factor (mg/kg-day)-1	Inhalation Reference Concentration (mg/kg-day)		Cancinogenic Risk	Noncancinogenic Risk
acetone	1.4E-03	NA	3.1E+01		NA	1.0E-07
benzene	4.2E-04	5.5E-02	3.0E-02		7.6E-10	3.2E-05
4-methyl-2-pentanone	4.4E-03	NA	3.0E+00		NA	3.3E-06
methyl ethyl ketone	3.4E-04	NA	5.0E+00		NA	1.5E-07
ethylbenzene	6.8E-05	2.5E-06	1.0E+00		5.5E-15	1.5E-07
ethylmethacrylate	4.4E-06	NA	7.0E-01		NA	1.4E-08
isobutyl alcohol	1.9E-05	NA	NA		NA	NA
trichloroethene	5.1E-05	2.0E-06	NA		3.3E-15	NA
toluene	2.1E-04	NA	5.0E+00		NA	9.6E-08
xylene	1.4E-04	NA	1.0E-01		NA	3.3E-06
Total Carcinogenic and Noncarcinogenic Risks for Inhalation Exposure with On-Site Groundwater in Trench =					**7.6E-10**	**3.9E-05**

Estimated Cancer and Non-Cancer Risks Associated with Inhalation Exposure of VOCs in Trench Air migrating from Off-site Perched Ground Water
On-Site Construction/Utility Worker

Exposure Route	Parameter Code	Parameter Definition	Units	Values for Adult Exposure	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	CA	Chemical Concentration in Trench Air	mg/m^3		Modeled concentration in Trench Air	Exposure Concentration (EC) (mg/m^3) =
	ET	Exposure Time - Outdoor	hr/day	1	Professional Judgment -- assumes 1 hr of workday in trench	(CA x ET x EF x ED)/AT
	EF	Exposure Frequency - Outdoor	days/yr	20	Professional Judgment	
	ED	Exposure Duration	yr	1	Professional Judgment -- assumes 1 year construction duration	
	AT_c	Averaging Time for Carcinogens	hours	613,200	USEPA 2009	
	AT_{nc}	Averaging Time for Noncarcinogens	hours	8,760	USEPA 2009	

		Toxicity Values			VOCs in Trench Air Estimated Inhalation Exposure Risks	
Constituent	Concentration in Trench Air mg/m^3	Inhalation Unit Risk Factor (mg/kg-day)-1	Inhalation Reference Concentration (mg/kg-day)		Cancinogenic Risk	Noncancinogenic Risk
acetone	1.6E-04	NA	3.1E+01		NA	1.2E-08
4-methyl-2-pentanone	2.8E-05	NA	3.0E+00		NA	2.2E-08
methyl ethyl ketone	4.6E-06	NA	5.0E+00		NA	2.1E-09
Total Carcinogenic and Noncarcinogenic Risks for Inhalation Exposure with On-Site Groundwater in Trench =					**NA**	**3.6E-08**